GX Configurator-DP 7

Configuration System for Open Networks

Software Manual

Art. no.: 165778
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Version I

About this Manual

The texts, illustrations, diagrams, and examples in this manual are only intended as aids to help explain the functioning, operation, use, and programming of the open network configuration system **MELSOFT GX Configurator-DP**.
Separate manuals are available for MITSUBISHI ELECTRIC's various series of MELSEC programmable logic controllers.

This manual is only intended for users with experience in handling automation and communication networks.
For using and usage of this software only the user his own is responsible.

If you have any questions regarding the installation and operation of the software described in this manual, please do not hesitate to contact your sales office or one of your Mitsubishi distribution partners.
You can also obtain information and answers to frequently asked questions from our Mitsubishi website under www.mitsubishi-automation.com.

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The IEC 61131.1 standard cited in this manual is available from the publishers Beuth Verlag in Berlin (Germany).

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Reference Manual for
MELSOFT GX Configurator-DP
Art. no.: 65778

Version		Changes / Additions / Corrections
A	07/1997 ME	First issue
B	12/1998 pdp-rs	Update to software version 2.00
C	12/1999 pdp-rs	Update to software version 3.00
D	12/2000 pdp-rs	Update to software version 4.00
E	07/2002 pdp-rs	Update to software version 5.00A. Major changes: - Added section 4.2, "Parameter Setting for QJ71PB93D Slave Modules" - Added chapter 5, "Online Access of Modules"
F	03/2003 pdp-cr	Update to software version 5.01B
G	12/2003 pdp-cr	Update to software version 6.00A Major changes: - Integration of configuration tool GX Configurator-ST
H	06/2004 pdp-cr	Update to software version 6.01B
I	08/2005 pdp-ow	Update to software version 7

Typographic conventions

Use of notes

Notes containing important information are clearly identified as follows:

NOTE | Note text

Use of examples

Examples containing important information are clearly identified as follows:

Example ▽ Example

△

Numbering in figures and illustrations

Reference numbers in figures and illustrations are shown with white numbers in a black circle and the corresponding explanations shown beneath the illustrations are identified with the same numbers, like this:
❶ ❷ ❸ ❹

Procedures

In some cases the setup, operation, maintenance and other instructions are explained with numbered procedures. The individual steps of these procedures are numbered in ascending order with black numbers in a white circle, and they must be performed in the exact order shown:

① Text

② Text

③ Text

Footnotes in tables

Footnote characters in tables are printed in superscript and the corresponding footnotes shown beneath the table are identified by the same characters, also in superscript.

If a table contains more than one footnote, they are all listed below the table and numbered in ascending order with black numbers in a white circle, like this:

① Text

② Text

③ Text

Character formatting and orientation aids

Menu names, menu commands, submenu commands, and dialog box options are printed in **boldface** type. Examples: The menu item **New** in the menu **Project** or the options **PLC interface** and **Computer Link** in the dialog box **Transfer-Setup**.

Please keep this manual in a place where it is always available for the users.

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1 Introduction

1.1 This manual...

...is a compact guide to using GX Configurator-DP software suitable both for beginners and experienced users upgrading from other systems. The manual includes explanations of the terms and structural concepts about the software and the configuration of an open network system. The manual provides a precise step-by-step description of how to use GX Configurator-DP including sample projects. These executable application is used to demonstrate the operation of the program with the help of the exercises provided in this manual.

The PLC series MELSEC Q Series is designated as MELSEC system Q in this manual.

1.2 If you're not yet familiar with MS Windows...

... please at least read the Windows Fundamentals section in the Windows User's Guide, or work through the Windows Tutorial accessible through the Help menu of the Windows Program Manager. This will teach you what you need to know about using the basic elements of Microsoft® Windows, and the operating procedures that are identical in all Windows application programs.

1.3 If you have problems with parameter settings, ...

... please refer to the user´s manuals of the concerning open network modules.

1.4 If you get stuck...

... don't despair, help is never far away! If you run up against seemingly insoluble problems, or if you have questions about GX Configurator-DP or the connected programmable logic controller (PLC) configuration, please first refer to the manuals and documentation. Many answers and solutions can also be found directly in the GX Configurator-DP context-sensitive online help system, which can always be accessed by pressing F1. Make use of the **Index** command in the **Help** menu as well, as this will often locate the information you need. If you cannot find answers to your questions in any of these places, contact your local MITSUBISHI ELECTRIC representative or call our European headquarters in Ratingen directly. The addresses and phone numbers are provided on the back covers of all our manuals.

2 Installation

2.1 Before You Begin

2.1.1 Software Purpose

This software is a configuration utility software package which will be used to configure PROFIBUS/DP network interface modules of MELSEC System Q, QnA, A and FX series' PLC such as:

- PROFIBUS/DP master interface A(1S)J71PB92D
- PROFIBUS/DP master interface QJ71PB92D
- PROFIBUS/DP V1/V2 master interface QJ71PB92V
- PROFIBUS/DP V1 master interface FX3U-64DP-M
- PROFIBUS/DP slave interface QJ71PB93D

2.1.2 General Features

This software package has the following features:

- Editor windows
- Network parameter checking functions
- Download and Verify possibilities to the network modules
- Parameter file handling on floppy disk / hard disk
- Parameter print feature
- Screen resolution independent

2.2 System Requirements

To install the GX Configurator-DP software package, your computer has to meet the following requirements.

2.2.1 Minimum Hardware requirements

- Pentium II 350 processor
- 32 MB RAM for Microsoft® Windows 98/Windows Me
- 64 MB RAM for Microsoft® Windows NT 4.0, Windows 2000
- 128 MB RAM for Microsoft® Windows XP
- VGA compatible graphics adapter
- 17"/43 cm diag. VGA monitor
- At least 200 MB free hard disk space
- CD-ROM drive
- One serial port for communication with the PLC system

2.2.2 Software requirements

GX Configurator-DP is a 32-bit software that runs on the following operating systems:

- Microsoft® Windows 98 or Windows Me (at least Microsoft® Internet Explorer 5.5 installed)
- Microsoft® Windows NT 4.0 (Service Pack 6 or later and at least Microsoft® Internet Explorer 5.5 installed)
- Microsoft® Windows 2000 (Service Pack 2 or later installed)
- Microsoft® Windows XP Home or Professional Edition

NOTES

It is recommended to use Microsoft® Windows 2000 or Windows XP.

On all operating systems with the exception of Microsoft® Windows XP, Microsoft® Internet Explorer 5.5 must be installed.

2.2.3 Copyright

NOTE

IMPORTANT NOTICE: This software is protected by copyright. By operating the distribution disks package you automatically accept terms and conditions of the Licence Agreement. You are only permitted to make one single copy of the original distribution disks for your own backup and archiving purposes.

2.3 Project file compatibility

Open previous project files in the GX Configurator-DP 7 according to the following table:

File type	Software version
*.dp2	ProfiMap 3.0 GX Configurator-DP 4.00 GX Configurator-DP 4.01A GX Configurator-DP 4.02C GX Configurator-DP 5.00A GX Configurator-DP 5.01B GX Configurator-DP 6.00A GX Configurator-DP 6.01B GX Configurator-DP 6.02C

Tab. 2-1:
Compatible project files

Compatibility of project files from GX Configurator-DP

Other previous versions cannot open GX Configurator-DP 7 project databases.

2.4 Software installation

2.4.1 GX Configurator-DP software setup

To install the GX Configurator-DP software from CD-ROM under Microsoft® Windows 98/Windows Me or Windows NT/Windows 2000/Windows XP, you need to have Microsoft® Windows installed properly. You might need administrator privileges when installing GX Configurator software.

If an old version of GX Configurator-DP is already installed, uninstall it first. After the deinstallation please start the installation of the new version. If you want to keep the older version of GX Configurator-DP please select a different directory and program folder for GX Configurator-DP 7. If the newer version is installed over the older version into the same directory, this will cause problems with the old entries in the **Start** → **Programs** menu. A deinstallation of the older GXDP version, after the newer version has been installed, will also damage the newer version. Therefore if you want to correct problems with the older entries please reinstall new version after uninstalling both the older and the newer GX Configurator-DP versions.

Please close all other running software before installation and do not run other installation programs during the installation of the GX Configurator-DP software.

2.4.2 Installing GX Configurator-DP/GX Configurator-ST on your hard disk

To start the installation, proceed as follows:

① If you have not done already, start Windows.

② Insert the installation CD-ROM into your CD-ROM drive.

③ On the Desktop select the **Start** menu and the **Run...** command.

④ Enter: d:\setup.exe
(for "d:" enter the drive letter of YOUR CD-ROM drive)

⑤ The language selection screens of GX Configurator-DP appear. Choose the required language.

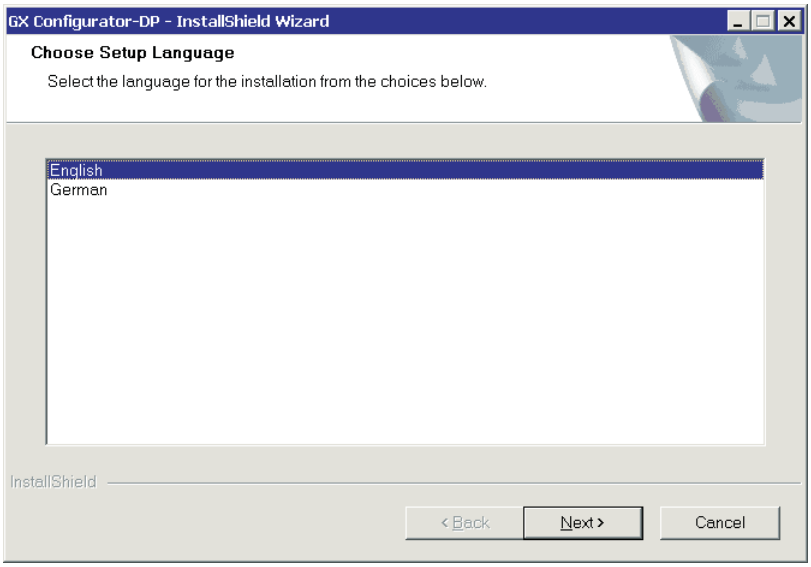


Fig. 2-1: *Language selection screen*

Follow the given instructions that guide you through the installation procedure. Continue with **Next >**.

⑥ Then you are in the licensing agreement window. Please read these terms carefully.

⑦ Click on **Yes** to agree to the licensing agreement, if you want to proceed or **No**, if you want to abort. You are then in the User Information screen. You must enter your name, company, and the product serial number here.

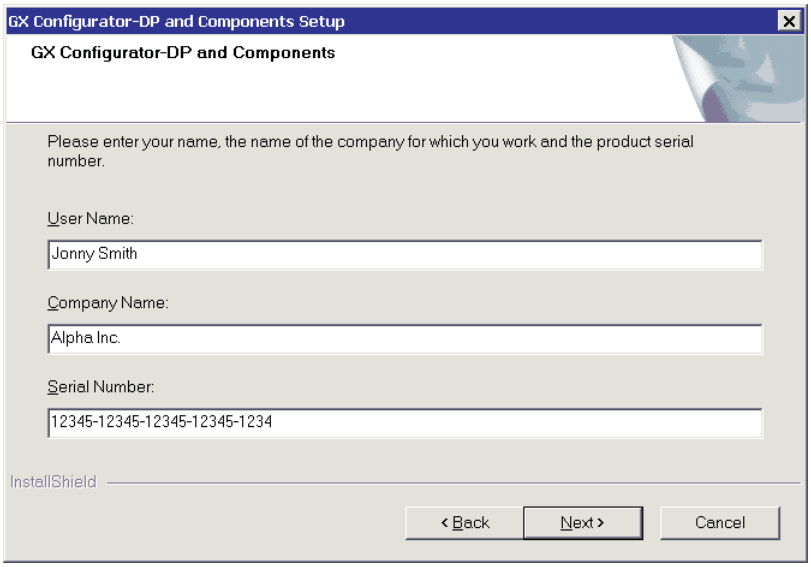


Fig. 2-2: *User information screen of GX Configurator-DP*

Click on **Next >** to proceed to the Registration Confirmation. Here you can check the registration information you have provided.

⑧ Click on **Yes** to proceed with the installation.
Now you will be asked for the installation path. Enter the destination folder where you want the GX Configurator-DP software to be installed.
(Default **C:\Melsec\GX Configurator-DP**).

⑨ If you agree with the default setting, just click on **Next >**. If you want to choose another destination click on **Browse** and enter your desired drive and directory.

⑩ Now you can select the program folder which you want to have installed. Enter a new folder name or accept the displayed one and click on **Next >**.

⑪ You can choose between three types of setups:

– Typical: Installation of GX Configurator-DP and GX Configurator-ST (Default setting)

– Compact: Installation of GX Configurator-DP only

– Custom: You can select, whether to install GX Configurator-ST

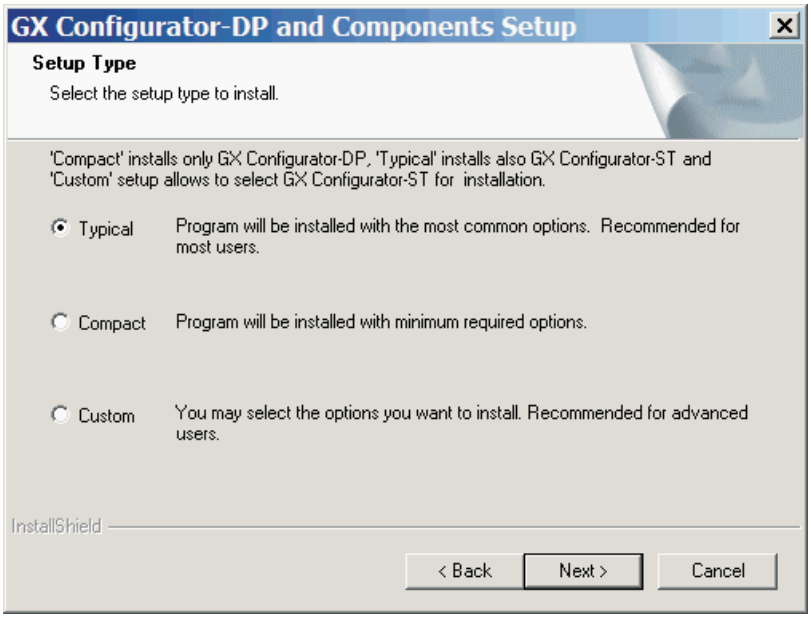

GX Configurator-DP and Components Setup
Setup Type
Select the setup type to install.
'Compact' installs only GX Configurator-DP, 'Typical' installs also GX Configurator-ST and 'Custom' setup allows to select GX Configurator-ST for installation.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Custom
You may select the options you want to install. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

Fig. 2-3: *Setup type selection*

When you select custom setup, a list of optional components is displayed. Only the marked components will be installed. As default the GX Configurator-ST is selected.

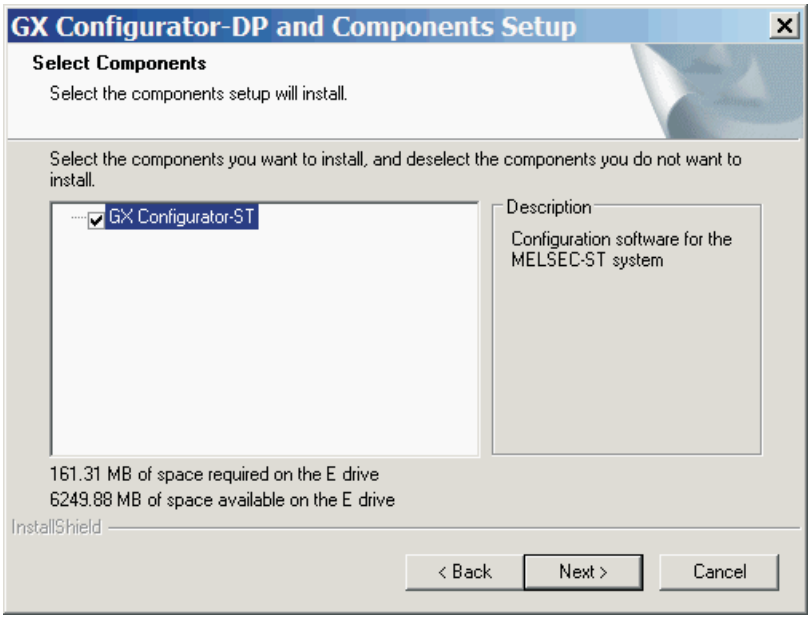

GX Configurator-DP and Components Setup
Select Components
Select the components setup will install.
Select the components you want to install, and deselect the components you do not want to install.
GX Configurator-ST
Description
Configuration software for the MELSEC-ST system
161.31 MB of space required on the E drive
6249.88 MB of space available on the E drive
InstallShield
< Back
Next >
Cancel

Fig. 2-4: *Optional Components*

⑫ The installation of GX Configurator-DP will start. Progress bars will inform you about the setup status.

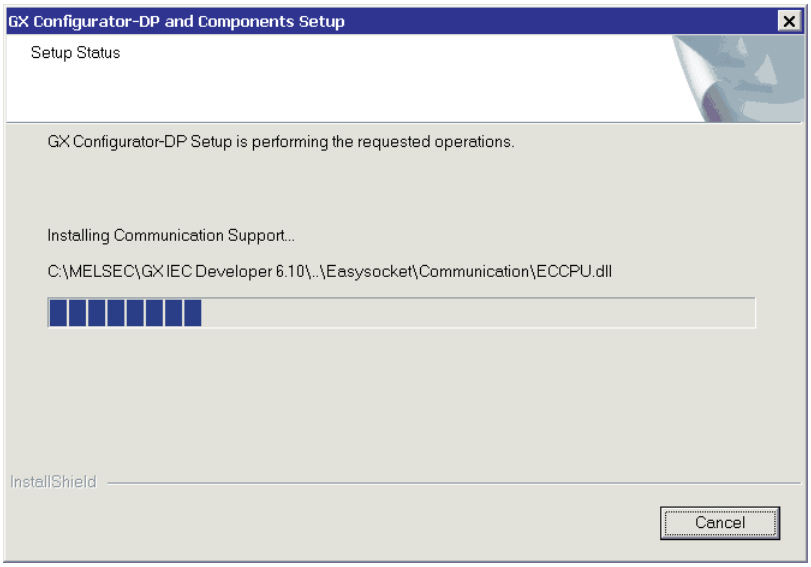


Fig. 2-5: *Setup status on progress bar*

⑬ After the successfull installation, you will see an appropriate message.

2.4.3 Button functions

Next > With the **Next** button you will leave the current menu and enter the next menu.

< Back With the **Back** button you go to the previous window.

Cancel **Cancel** button ends the installation procedure.

3 The Menus

3.1 Starting GX Configurator-DP

Select GX Configurator-DP from the Windows Start menu:
Start/Programs/MELSOFT Application/GX Configurator-DP

3.2 Main menu

The main menu offers the following pull-down menus. The menu items **Actions**, **Tools**, and **Windows** are available only if a project file is opened.

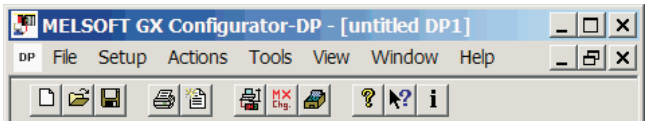


Fig. 3-1:
Main menu

The pull-down menus can be selected via mouse or keyboard.

File: Alt F

Setup: Alt S

Actions: Alt A

Tools: Alt T

View: Alt V

Window: Alt W

Help: Alt H

The items in the open pull-down menus can be accessed via mouse or keyboard.
The underlined character will start the function. In addition there are some menu items which may be started using predefined hotkeys.

The toolbar just below the main menu contains buttons for an instant access of the most frequently used functions of GX Configurator-DP. (The MXChange button is only available, if MXChange actually is installed on your computer):

New	Starting a new project	Ctrl N
Open	Opening an existing project	Ctrl O
Save	Saving a modified project	Ctrl S
Print	Printing the current project	Ctrl P
Page Setup	Defining the parameters to be printed	—
Transfer Setup	Defining the network connection type (PC to PLC)	—
MXChange	MXChange support properties	Ctrl M
GSD	GSD device database	Ctrl G
Help	Getting context help	F1
Help Tool	Getting help on items you click on	—
About	Displaying program information	F1

Tab. 3-1: *Toolbar icons*

3.3 File menu

After having started the GX Configurator-DP software, this is the first menu to work with. With the help of this menu you can create a new project, load an existing project, import and export a project.

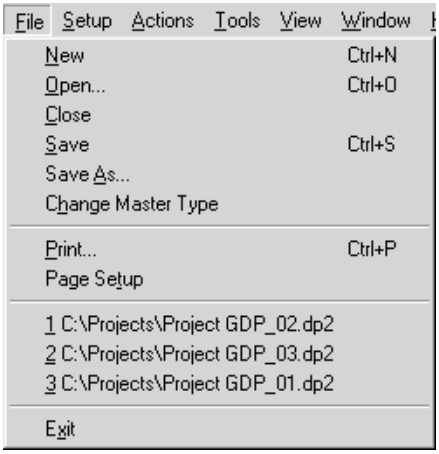


Fig. 3-2: *File menu*

The menu commands have the following functions.

Command	Purpose	Shortcut	Hotkey
New	Starting a new project	N	Ctrl N
Open	Opening an existing project	O	Ctrl O
Close	Closing an opened project	C	
Save	Saving a modified project	S	Ctrl S
Save As...	Saving a modified project with a new name	A	—
Change Master Type	Changing the type and operating mode (0 or E) of the DP master in the project	H	Ctrl T
Print...	Printing the current project	P	Ctrl P
Page Setup	Defining the parameters to be printed	T	—
Project select	Opening one of four recent projects	1,2,3,4	—
Exit	Leaving the software	X	—

Tab. 3-2: *File menu commands*

All these menu commands are described in detail on the following pages.

3.3.1 Command New

The menu command **New** is used to create a new project.

NOTE | No default module type is selected. Choose a module type before continuing.

First you have to select one of the following module types you intend to setup:

- DP master A(1S)J71PB92D (operating mode 0 or E)
- DP master QJ71PB92D (operating mode 0 or E)
- DP V1/V2 master QJ71PB92V
- DP V1 master FX3U-64DP-M
- DP slave QJ71PB93D

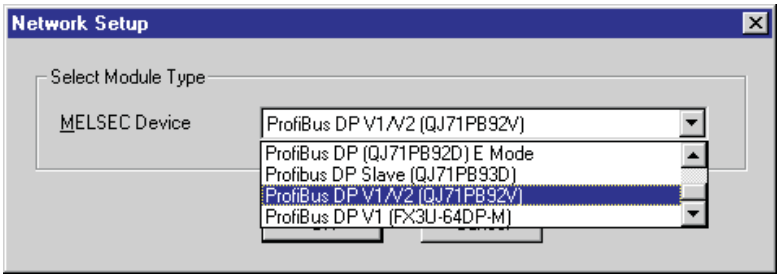


Fig. 3-3:
Module type selection

Then the *graphical network editor* appears:

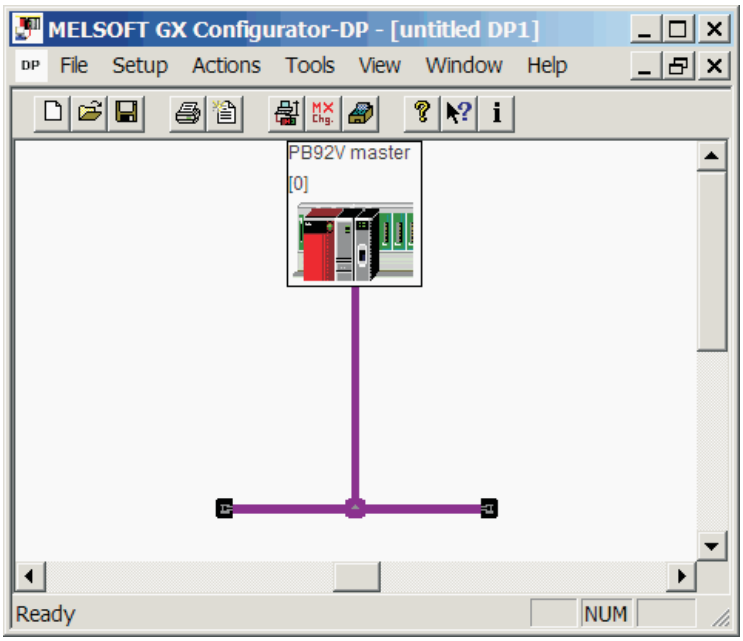


Fig. 3-4:
Graphical network editor

Here you edit the dedicated parameters for the selected network interface module in specific editors.

At present the **A(1S)J71PB92D**, **QJ71PB92D**, **QJ71PB93D**, **QJ71PB92V** and **FX3U-64DP-M** PROFIBUS/DP network interfaces are supported.

The following parameters can be edited:

- Master settings (see page 4-3)
- Bus parameters (see page 4-8)
- Slave settings (see page 4-12)

Chapter 4 of this manual contains a detailed description of the meaning and setting of these parameters.

3.3.2 Command Open

The menu command **Open** allows to open a project, which has previously been saved. This command uses the Windows dialog box for file open operation.

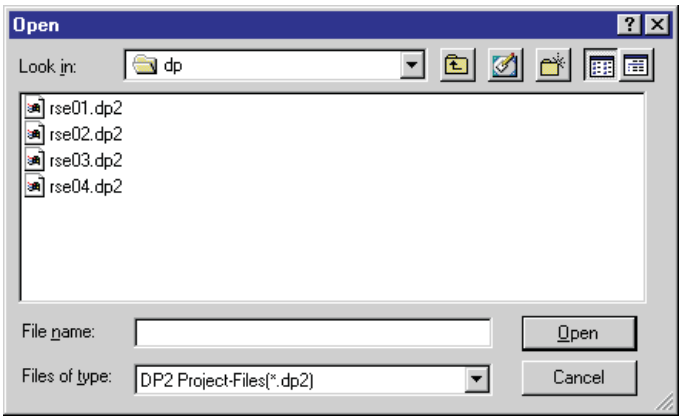


Fig. 3-5:
Opening a project file

The **Open** dialog box lists only files of the following type:

- *.DP2: Project of any master module's PROFIBUS/DP network
- *.DPX: Module configuration for QJ71PB93D DP slave modules

This functionality ensures that any GX Configurator-DP 7 PROFIBUS/DP project can be opened that was generated on any other personal computer running GX Configurator-DP 7.

The shortcuts defined by the Windows dialog box for file open are valid.

NOTE

*.DP-projects generated with software versions previous to MELSEC ProfiMap V. 3.0 cannot be opened.

3.3.3 Command Close

This menu command closes the active project.

3.3.4 Command Save

This menu command is used to save a modified project. The project will be saved to the assigned file name. If no file name exists (e.g. new project) the standard dialog box for **Save as** will be opened.

Two different file types are used:

- *.DP2: Project of any master module's PROFIBUS/DP network
- *.DPX: Module configuration for QJ71PB93D DP slave modules

Saving a DP2 project:

- The project is saved with the extension *.DP2 where PROFIBUS/DP network configuration is stored.

Exporting GSD to project file:

- The GSD information belonging to a specific project is stored in the project file. This ensures that all information, which is required to edit the project, is available. It is therefore no longer required to add GSD information to the local GSD database in order to open a project.

NOTE

The project files are saved in a special format with the file extension "*.DP2". These files increase typically its size, whenever entries are removed or added. Therefore the file will be compressed by any saving automatically. If you use Microsoft® Windows 98/Windows Me the compression of the database is not available.

3.3.5 Command Save As

This menu command is used to save a modified project with a new assigned file name. This command uses the dialog box for file saving.

The file extension *.DP2 or *.DPX is appended automatically depending on the module type you selected.

3.3.6 Command Change Master Type

Available for *.DP2 projects only. This menu command changes the current project to a different type of master module.

3.3.7 Command Print

Available for *.DP2 projects only. The purpose of this menu command is to print the generated parameters of the selected network unit, based on a HTML formatting. The information about what is to be printed is set by the command **Page Setup**.

The printout function starts the default webbrowser to open the generated HTML file. Detailed appearance of the printout depends therefore on the browser. The document from the webbrowser can either be printed or saved to a file, e.g. for including it in the project documentation.

Because the printout accesses the project file, the currently open project must first be saved, before the settings can be printed. This is done automatically, unless it is a new project, which has not yet been saved under a file name. In this case the file dialog for saving the project will be displayed.

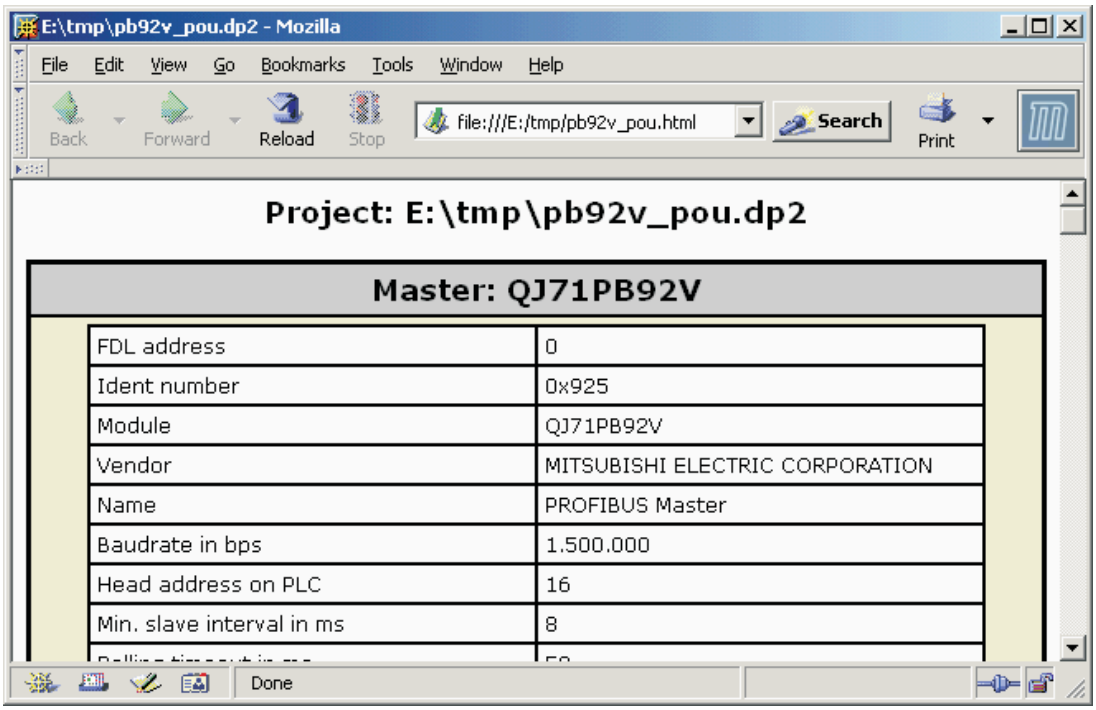


Fig. 3-6: *Browser window when **Print** command is selected*

3.3.8 Command Page Setup

Available for *.DP2 projects only. When you choose **Page Setup** you can select which parameters will be printed. The selections to be checked depend on the used network interface. Additionally, you can indicate the position of the printed header on the page: top or bottom. If you select **No header** the header information will not be printed.

The project header is not part of the project. It is saved in a local file and is the same for all projects until changed.

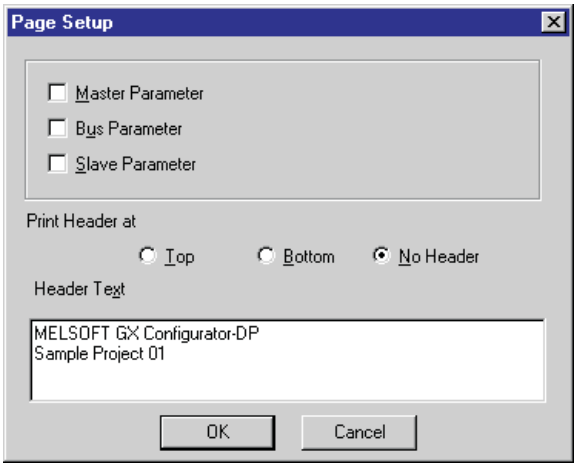


Fig. 3-7:
Page setup

3.3.9 Command Recent Files

The pull-down menu shows you the last four used projects. You can open one of them by pressing the shortcut 1 to 4 or selecting it with the mouse cursor.

3.3.10 Command Exit

You can use this menu command to quit the software. If anything in the current project has been modified and has not yet been saved the following message appears:

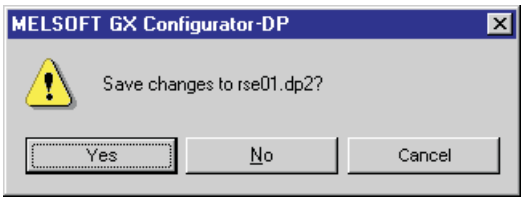


Fig. 3-8:
Save changes to project?

If you want to save the last changes before leaving this software choose Yes .

If you choose No all modifications are lost.

3.4 Setup menu

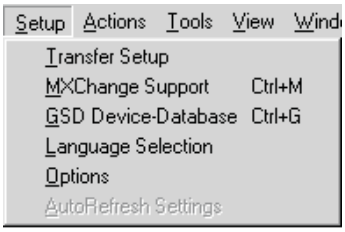


Fig. 3-9: *Setup menu*

In the **Setup** menu you select the following menu commands.

Command	Purpose	Shortcut	Hotkey
Transfer Setup	Provides a dialog to define and configure connections between PC and PLC.	T	
MXChange Support	Provides a dialog to set up the properties of the MXChange connection. MXChange support is only selectable in case that MXChange is installed on the computer or on a LAN connected to the personal computer.	M	Ctrl M
GSD Device-Database	Provides a dialog to access the GSD device database.	G	Ctrl G
Language Selection	Opens a dialog to select either German or English for the user interface.	L	
Options	Opens a dialog in which the user can change settings related to the GSD database	O	
Auto Refresh Settings	Specifies the buffer memory area for the autorefresh	A	

Tab. 3-3: *Setup menu commands*

3.4.1 Command Transfer Setup

Provides a dialog to define and configure connections between PC and PLC (for details refer to chapter 5).

3.4.2 Command MXChange support

Available for *.DP2 projects only. MXChange is an external software package made by Mitsubishi Electric. An A(1S)J71PB92D or QJ71PB92D PROFIBUS/DP module project can use MXChange to generate a suitable PLC CPU sequence program at MELSOFT GX IEC Developer or MELSEC MEDOC *plus* v2.32 or later. The PLC CPU program update is done automatically with saving the A(1S)J71PB92D or QJ71PB92D project. For this purpose the MXChange server must be installed and GX Configurator-DP must be connected to this server.

This dialog is used to setup the MXChange connection:

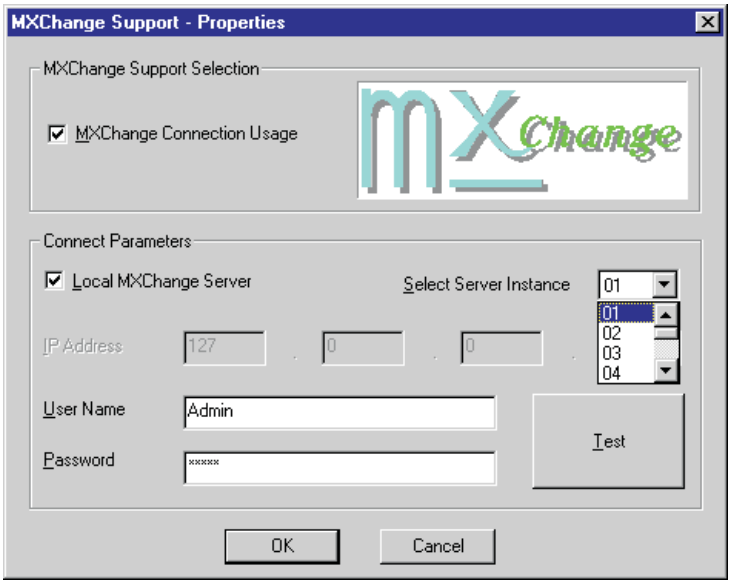


Fig. 3-10: *MXChange support properties*

Item	Meaning	Shortcut
MXChange Connection Usage	Enable/disable the MXChange function	Ctrl M
Local MXChange Server	Specifies that MXChange is installed locally on the same system as GX Configurator-DP (not in a LAN)	Ctrl L
Select Server Instance	Selects one of up to 16 available servers to connect to	Ctrl I
IP Address	Specify the IP address of the MXChange server in the LAN (ask your network administrator)	
User Name	Enter your user name for the MXChange server	Ctrl U
Password	Enter your password for the MXChange server	Ctrl P
Test	Tests, if a connection to the MXChange server can be established with the specified settings	Ctrl T

Tab. 3-4: *Dialog items MXChange support*

You can set the MXChange connection usage for the A(1S)J71PB92D or QJ71PB92D project by enabling the MXChange Connection Usage check box.

If you prefer a local MXChange server, it is compulsory to install the server on the local PC. The local MXChange server is selected by enabling the Local MXChange Server check box. For correct remote MXChange support it is compulsory to install the TCP/IP services of the operating system. The correct IP address of the remote station where the server is located can be set by disabling the local MXChange server check box. The correct account, subdivided by the User Name and Password is also compulsory for remote connection usage.

If the MXChange connection is enabled and a project is saved for a master, which is not supported by MXChange, a warning message is displayed.

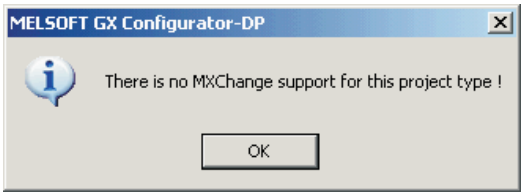


Fig. 3-11:
Warning message

3.4.3 Command GSD Device Database

The command is only available, if no project is currently open. However the GSD database only effects .DP2 projects. The device database contains information about slave devices from Mitsubishi or 3rd party manufacturers. This item is used to add or delete devices from the internal database (so called GSD files from PROFIBUS/DP slave devices), to change settings in the GSD database, and to import extracted GSD data from other computers running GX Configurator-DP.

The purpose of this function is to add or delete devices from the internal database of available devices. The software is distributed with a predefined list of groups, which provide a general structure for all added slave devices.

Because changes to slave types, which are used in any currently open project, may impact these projects, the GSD database can only be modified, if no project is open. Therefore the following message box will be displayed, when trying to open the dialog with a project currently opened. So first close all open projects.

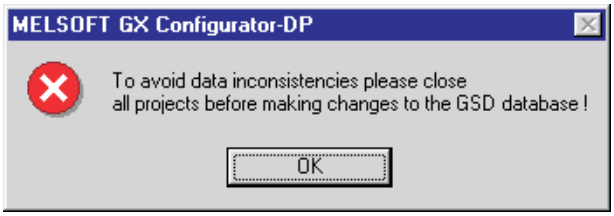

MELSOFT GX Configurator-DP
To avoid data inconsistencies please close
all projects before making changes to the GSD database !
OK

Fig. 3-12:
Error message

The **Device Database** can be modified in the following dialog box:

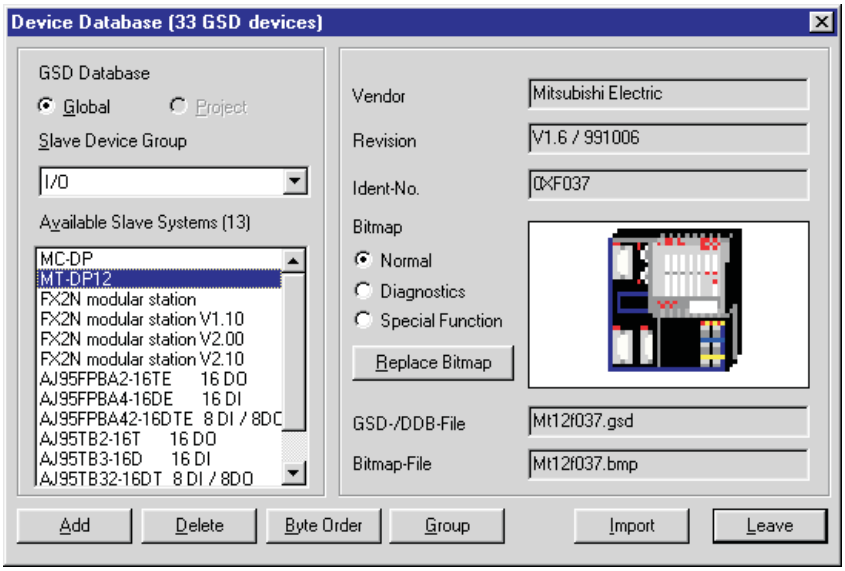


Fig. 3-13:
Device database

When a group is selected in the box **Slave Device Group**, the model names of the devices belonging to the selected group are displayed in the lower list box **Available Slave Systems**.

Upon selecting a device entry in this list box the bitmap, which has been assigned to the device, is displayed on the right side of the list box.

By double-clicking on the bitmap display or using the button "Replace Bitmap", a file dialog is opened, in which a file with a new bitmap can be selected. Via the group of radio buttons the type of bitmap that is replaced can be selected. The GSD standard specifies bitmaps for:

- normal operation (this is used in the GX Configurator-DP editor)
- diagnostic status
- special operations mode

Beneath the bitmap both vendor name and revision string are displayed, as well as the name of the GSD file and the bitmap file. The so called GSD file describes the features of the slave such as the supported baud rate and the slave structure (modular slave/compact slave). The displayed vendor name and revision are included in the GSD file as well.

Please ask the manufacturer of the slave device for the proper GSD file.

Adding devices

A slave device can be added to the database by pressing Add. A standard Open File-dialog appears, so the GSD file can be selected. Each added GSD file is automatically checked for its data integrity. When leaving the Open-dialog with OK , the user will be asked for some bitmap files (optional). Then the GSD device data is saved in the local GSD device database. The GSD file itself is no longer required. If the GSD file itself refers to a drawing picture of the slave device GX Configurator-DP searches automatically for the file. In case that the file is not found another Open File-dialog is displayed, so the user can select the bitmap file, which he wants to be linked to the GSD file, representing the corresponding device.

The bitmap file can be supplied by the user from disk. It can be a bitmap file of the data type *.BMP or *.DIB. However the PROFIBUS/DP standard recommends to provide a bitmap file for the dedicated slave device with the following restrictions:

Bitmap	
Width	70 pixels
Hight	40 pixels
Colors	16
File extension	DIB

Tab. 3-5:
Bitmap restrictions

Only bitmaps that match the requirements in the table above should be used. Other bitmaps with other sizes and color depths can be used, but will cause a warning message.

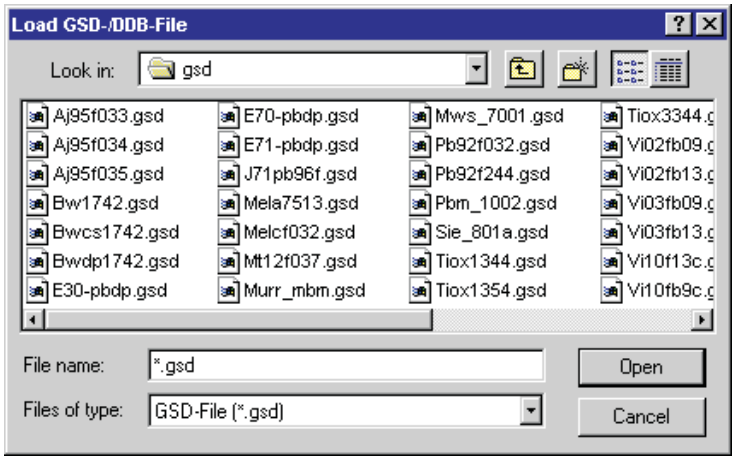


Fig. 3-14:
Loading a bitmap for the device database

When both GSD and bitmap file have been selected, you will be asked to confirm the operation.

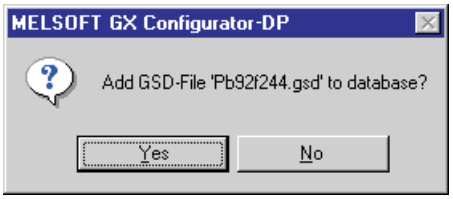


Fig. 3-15:
Add files to device database?

If you confirm, the contents of both files are read in and an entry is added to the internal device database for that device. Thereafter, you do not need the actual GSD and bitmap files any more.

Set Byte Order

With this function you can exchange the upper and lower byte order of user parameter. There are two types of byte ordering: little endian and big endian.
Normally slaves expect user parameters in "big endian" format. This is the default setting, when a slave is added to the device database (with the exception of "FX2N modular station"). Only in rare cases this setting should be changed and only after consultation with the slave vendor.
For a complete list of the devices from the GSD database, click on the Byte Order button.

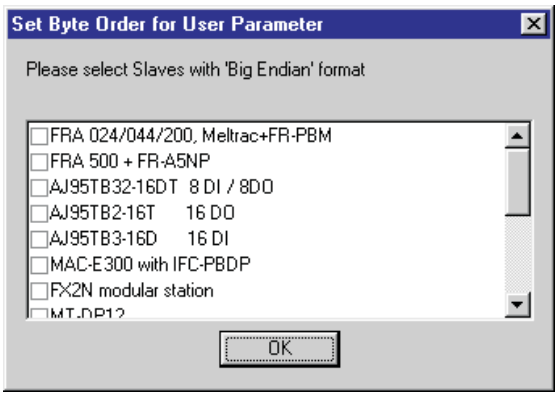


Fig. 3-16:
Selecting byte order

When the selection mark is set, the slave uses "big endian" format. Otherwise it uses "little endian" format for user parameters.
Select the Slaves with "big endian" format.

Changing the Slave Device Group

DP slaves are grouped in one of the so-called ‘slave families’. The default group is usually specified in the GSD file. The slave can be assigned to a different group in the **Slave Device Group** dialog.

Click on the Group button to open the dialog **Select Slave Family**.

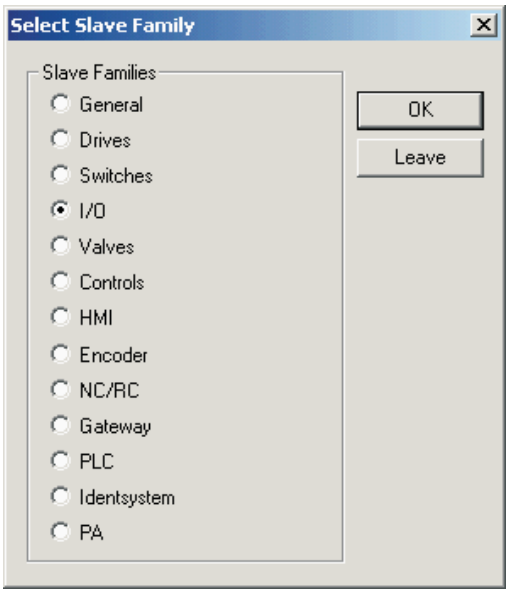


Fig. 3-17:
Select a family

Click on one of the radio buttons to select a family.
If the device group has not been specified in the GSD file, the slave is placed by default into the ‘General’ group.

Importing GSD-Extract Files

The GSD-Extract feature allows the transfer of the entire device information of one project from one personal computer to another without passing on each single GSD file for any parameterized devices. Click on Import to load any existing GSD-extract file or a complete GSD-database file:

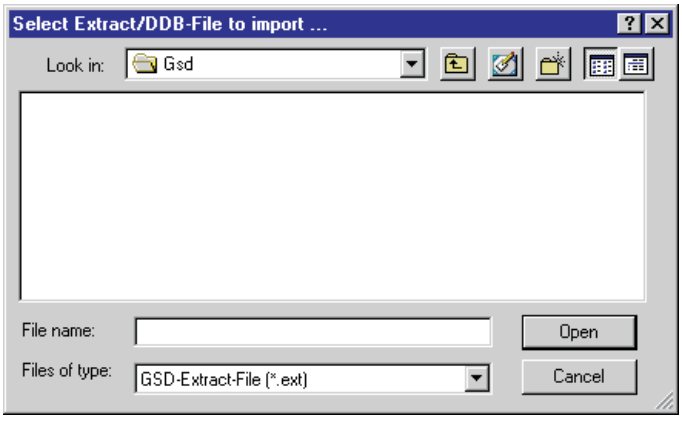


Fig. 3-18:
Selecting a GSD-extract file for the import

Removing devices

A device can be removed from the database by selecting the entry in the left list box and pressing the Delete button. This deletes only the entry in the GSD database. It does not delete the GSD and bitmap files for that device. These files have to be removed manually. The reason for this is that it is possible to undo the delete function.

NOTE

The entry is immediately removed after clicking on the Delete button. However you can add it once again later on.

3.4.4 Command Language Selection

Via this menu item you can select either the German or the English version of GX Configurator-DP.

The following dialog box is opened. To select the german version for example select **German** from the drop down list. Confirm your selection by the <OK > button.

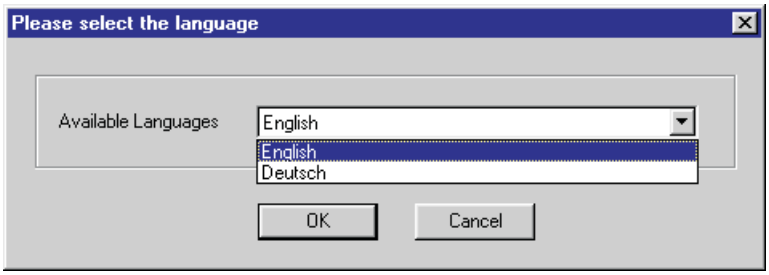


Fig. 3-19:
Selecting the language for the user interface

The following message is displayed:

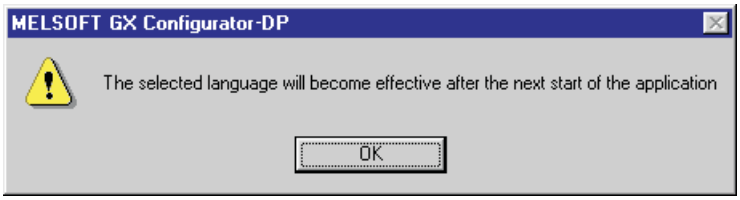


Fig. 3-20:
GX Configurator-DP has to be restarted for the language change

After changing the language selection exit GX Configurator-DP and start it again. Now the selected language version will be opened.

3.4.5 Command Options

Change settings related to the GSD database. This command opens the following dialog providing access to different options.

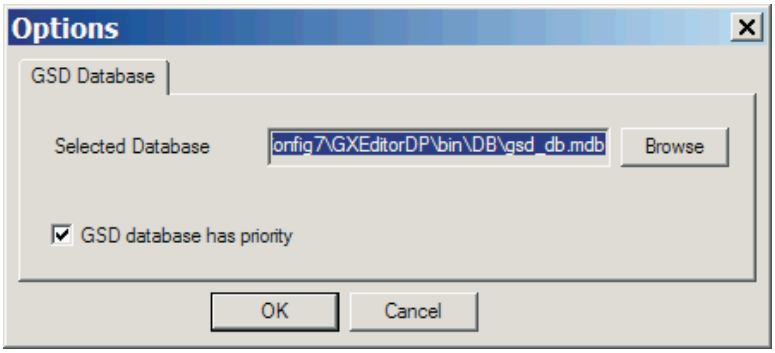


Fig. 3-21:
Options dialog

GSD database has priority

This option controls, whether GSD information in the project file, if present, is overwritten by the corresponding information from the GSD database for the same types.

This option has the following effects:

- When opening a project file
  - Case 1: The option **GSD database has priority** is selected
    GX Configurator-DP tries to locate the GSD information for the slave types, which are used in the project, in the local GSD database. If the type cannot be found in the database, it tries to find the information in the project file. If that fails as well, an error message is displayed and the project cannot be opened.
  - Case 2: The option **GSD database has priority** is not selected
    GX Configurator-DP tries to locate the GSD information for the slave types, which are used in the project, in the project file itself. If the type cannot be found in the project, it tries to find the information in the local GSD database. If that fails as well, an error message is displayed and the project cannot be opened.

MELSOFT GX Configurator-DP
Project load failed.
Possible cause can be that one ore more GSD-devices are missing within the local GSD database.
Please add them to the GSD database first and then open the project file again.
OK

Fig. 3-22: *Error message*

- When saving a project file

  When a project is saved, GXDP adds the GSD information for all slave types, which are used in the project and for which the GSD information does not already exist in the project file, to the project file. GSD information in the project file for types, which no longer are used in the project, is removed from the project file. GSD information existing in the project file for types still in use, is handled depending on the option **GSD database has priority**.

  - Case 1: The option **GSD database has priority** is selected
    If the GSD information for a certain type exists in both project file and local GSD database, the GSD entries in the project file are deleted and replaced by those from the GSD database.
  - Case 2: The option **GSD database has priority** is not selected
    Existing GSD entries in the project file for types, which are still in use, will not be changed.

3.4.6 Command AutoRefresh Settings

Available for *.DP2 projects with QJ71PB92D and QJ71PB92V DP masters only. You can specify the settings for the automatic update and the devices within the CPU. These settings are stored in the project file. Once the configuration is transferred to the CPU the settings of the automatic refresh is stored in the IPARAM file of the connected CPU.

In the *autorefresh settings editor* the buffer memory area for the autorefresh is specified.

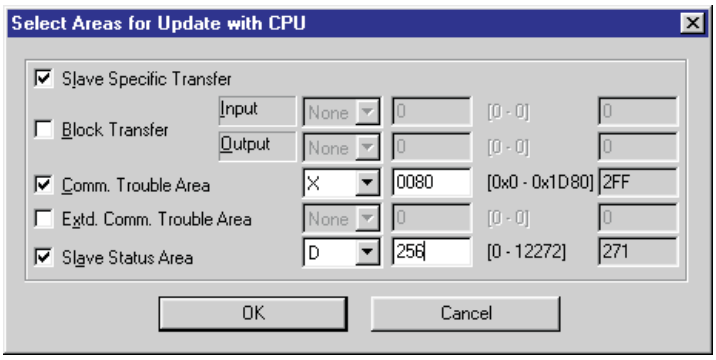


Fig. 3-23: *Autorefresh settings editor*

Item	Meaning
Slave Specific Transfer	Input and output areas of each slave are transferred separately. The CPU start devices can be specified individually for each slave in the *Slave Parameter Settings* dialog (see page 4-12). **Advantage**: No wasted CPU devices in Mode 0. **Disadvantage**: Long data transfer time.
Block Transfer	Input and output areas are transferred as one block. CPU start devices can be user-specified. **Advantage**: Short data transfer time. **Disadvantage**: Wasted CPU devices in Mode 0.
Communication Trouble Area	The contents of the selected area is copied to the specified CPU device.
Extd. Communi-cation Trouble Area	
Slave Status Area	
Cancel	Exit the dialog.
OK	Store the settings in the current project file.

Tab. 3-6: *Items in the autorefresh settings editor*

3.5 Actions menu

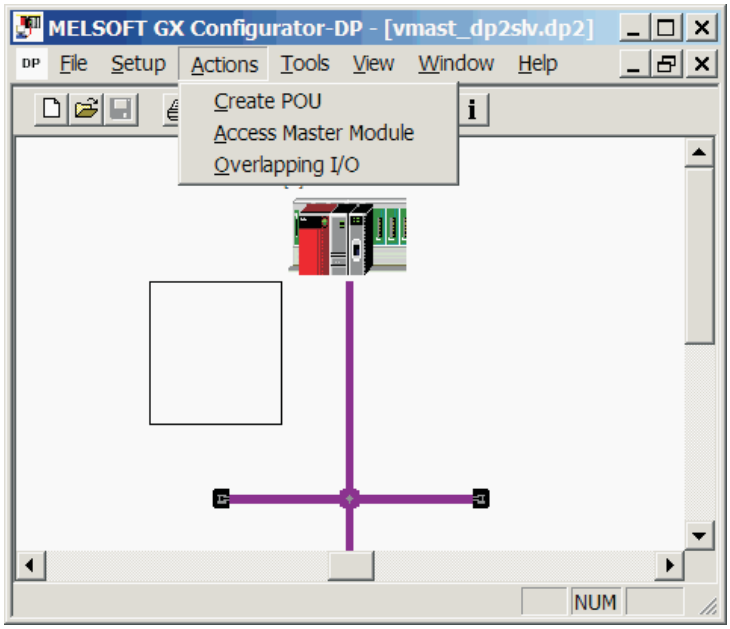


Fig. 3-24: *Actions menu*

In the **Actions** menu you select the following menu commands.

Command	Purpose	Shortcut
Create POU	Create the POU for copying slave I/O data between the DP master and the CPU	C
Access to Master Module	Download the configuration of the current project to the module specified by the current transfer setup.	A
Overlapping I/O	Check all I/O address areas assigned to DP slaves for overlapping regions	O

Tab. 3-7: *Actions menu commands*

3.5.1 Create POU

POU means Program Organisation Unit and is installed for a GX IEC Developer program. Basically the POU includes FROM/TO instructions to access the buffer memory of the master module. This POU must be included into the PLC program to have the I/O data of each slave copied to the given address in CPU memory.
The create POU function is available in projects for A(1S)J71PB92D modules and for QJ71PB92D modules, if the **Autom. Refresh** option is not set.
The **Create POU** function is available for all master modules. However, for QJ71PB92D and QJ71PB92V only, if the option **Autom. Refresh** in the **Master Settings** is not selected.

For further information please refer to the GX IEC Developer Reference Manual.

Automatically create the program code for copying slave I/O data between the DP master and the CPU.

NOTES

The **Create POU** function does not handle the error registers, diagnostic and alarm messages. It also does not check the data transferred, for example in order to set slave outputs. These parts of the PLC program must be created by the user according to the PLC application.

For details and example programs, please refer to the corresponding user manual of the PROFIBUS master.

For importing the created POU in the PLC program, please consult the manual of GX IEC Developer (GID).

When you choose the menu item **Create POU** a message appears in which the head adress of the POU is shown. The head adress is set in the Master Settings dialog.
In case of FX3U-64DP-M the term 'head address' equals the slot index of the master.

MELSOFT GX Configurator-DP
The POU is created for head address 0x0.
You can set the head address in the 'Master Settings'.
OK
Cancel

Fig. 3-25:
Display used head address

If you click on OK the **Save File As** dialog appears, where you select the name of the file, in which a POU in ASCII format is generated for GX IEC Developer.

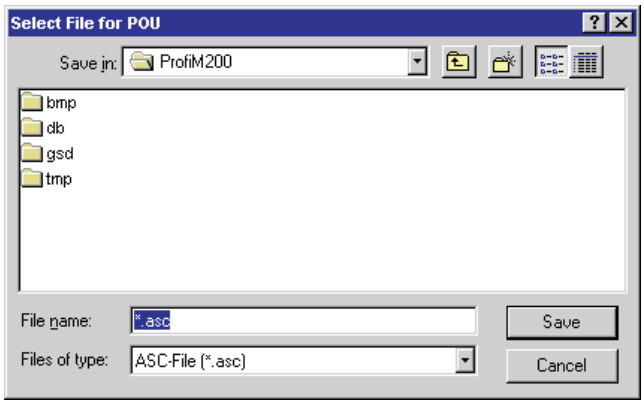


Fig. 3-26:
Creating a POU file

After typing in a project name and clicking **Save**, the file is saved to your selected drive.

NOTE

It is not allowed to start the file name with a number (0 to 9). Otherwise you will get an import error in GX IEC Developer since the file name is equal to the task and POU name which is generated. GX IEC Developer does not allow POU names which are beginning with a number.

3.5.2 Access to Master Module

With this function the generated configuration data can be transferred to the DP master, it interacts with the network interface module. Therefore, it is necessary that the personal computer is connected to PLC CPU.

Before you start the transfer:

- Ensure that no other data is transferred from or to the DP master by the PLC CPU (FROM/TO instructions)
- Ensure that the cable is connected correctly to your personal computer and to the PLC CPU.

A message appears when you click on the menu item **Access to Master Module**, which indicates the connected PLC. Confirm this message with OK.

NOTES

If you click on the menu item **Access to Master Module**, the current project file is saved first. This makes sure, that any changes made are included in the configuration, which is downloaded to the PROFIBUS module.

If the master type set in the project does not match the type of the actually connected module, the user receives a warning.

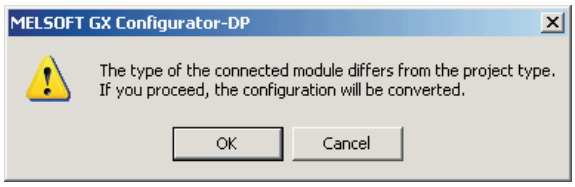

MELSOFT GX Configurator-DP
The type of the connected module differs from the project type.
If you proceed, the configuration will be converted.
OK
Cancel

Fig. 3-27:
Module differs

If the user decides to proceed regardless of the warning, the configuration is converted online. So if you want to be sure that your configuration is downloaded unchanged, please always select the correct master type when creating a new project or convert the project to one of the correct type.

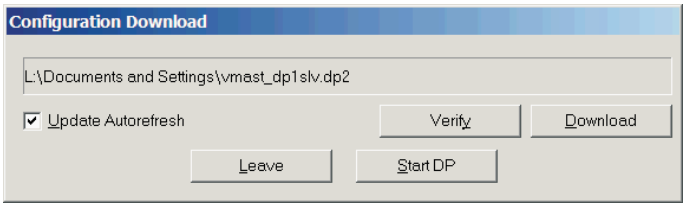


Fig. 3-28:
Configuration download dialog

The path of the current project will be shown.

NOTE

Imposed by MXChange connectivity the length of the path is limited to 127 characters.

Verify

This function verifies the settings of the selected project with the current configuration of the module. When pressing the **Verify** button, for PB92D masters a warning is displayed to inform the user that the dataexchange on the PROFIBUS network will be stopped.

Click **OK** to continue. The current configuration then is read from the module and compared with the configuration created from the current project. If both settings match, the following message box is displayed.

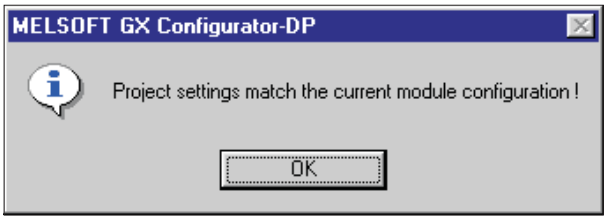


Fig. 3-29:
Message box

If the settings differ, the following message box informs about the existance of differences, but gives no specific details on which parts of the settings are different.

Fig. 3-31:
Message box

In case any problems occur, for example when reading the configuration from the module, a general error message is shown.

Download

To download the configuration one needs to click on the **Download** button. If you want to transfer the updated settings to the CPU mark the checkbox "Update Autorefresh". The checkbox is only selectable using PROFIBUS modules of the MELSEC System Q.

If the download is successful the following message appears:

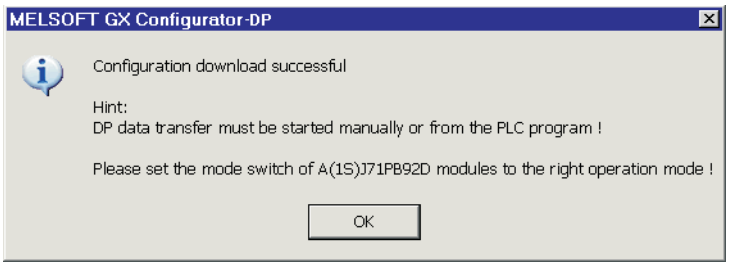

MELSOFT GX Configurator-DP
Configuration download successful
Hint:
DP data transfer must be started manually or from the PLC program !
Please set the mode switch of A(1S)J71PB92D modules to the right operation mode !
OK

Fig. 3-30:
Configuration download successful

NOTES

By downloading a configuration you stop the data exchange on the DP network.

If you use a A(1S)J71PB92D module the user must set the correct mode with the switch on the front of the module. The modes are 0 or E for operation mode and 1 for configuration mode. The module will take over the setting of the mode switch after a CPU reset.

The PROFIBUS/DP data transfer can be started or stopped manually by click on the Start DP button. If you want to leave the dialog, click on Leave.

3.5.3 Overlapping I/O

Checks all I/O address areas assigned to DP slaves for overlapping regions. In case of overlapping address areas the respective DP slaves are highlighted in the graphical network editor by a red square. In this case you have to re-assign the I/O address areas in the slave settings.

3.6 Tools menu

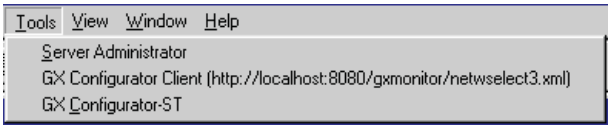


Fig. 3-32: *Tools menu*

In the **Tools** menu you can select the following menu commands:

Command	Purpose	Shortcut
Server Administrator	Tools for web-based online access to the network interface modules (For details refer to chapter 6)	S
GX Configurator Client		none
GX Configurator-ST	Starts GX Configurator-ST	C

Tab. 3-8: *Tools menu commands*

3.6.1 Starting GX Configurator-ST

The menu command GX Configurator-ST is used to start the configuration tool for the ST modules (Slice Terminal). This menu command is enabled, if GX Configurator-ST is installed, i.e. the corresponding executable file can be found.

With the GX Configurator-ST you can operate settings and monitor ST1H-PB graphically. It shows various status of ST1H-PB and slice modules, which include error information. You are able to use the forced output function via GX Configurator-ST and easily check your wirings. You can also set parameters of intelligent modules of ST series.

The GX Configurator-ST runs as a separate application with its own entry in the task list and must be closed separately. However, when GX Configurator-DP is closed, it displays a warning message in case GX Configurator-ST is still running.

3.7 View menu

In the **View** menu you can select the following menu commands:

Command	Purpose	Shortcut	Hotkey
Toolbar	Enable /disable toolbar	none	none
Statusbar	Enable /disable status bar	none	none
Zoom In	Increase view size of graphical network editor	none	none
Zoom Out	Decrease view size of graphical network editor	none	none

Tab. 3-9: *View menu commands*

These menu commands allow you to select whether the tool bar and the status bar will be displayed or not. A check mark in front of the commands shows that this function is currently activated.

3.7.1 Command Toolbar

If the toolbar is enabled, you will find additional buttons for creating documents, opening documents, saving documents or the help menu.

3.7.2 Command Status bar

If this command is enabled, a status bar will be displayed at the bottom of the window informing you about the selected item and the current status of the project.

3.7.3 Command Zoom In

Select this menu item to increase the view size of the graphical network editor.

3.7.4 Command Zoom Out

Select this menu item to decrease the view size of the graphical network editor.

3.8 Window menu

This menu provides the standard "window" functions:

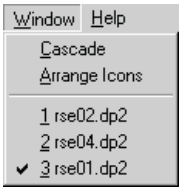


Fig. 3-33: *Window menu*

Command	Purpose	Shortcut
Cascade	Arranges all open project windows so that they overlap.	none
Arrange Icons	Arranges all minimized windows icons side by side at the bottom of the main window.	none
1, 2, 3, ...	Switches over to one of several projects that you keep open simultaneously. Either click on the loaded project you want to switch over to or enter the according number.	none

Tab. 3-10: *Window menu commands*

3.9 Help menu

From the Help menu you can select the following menu commands:

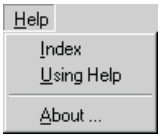


Fig. 3-34: *Help menu*

Command	Purpose	Shortcut
Index	Searching for keywords	none
Using Help	Call Windows „Using Help function“	none
About...	Display software release	none

Tab. 3-11: *Help menu commands*

3.9.1 Command Index

With the help of this function you can search for a keyword. Just type in the term you need information about and you will get help.

In addition you will be supported by a context-sensitive help. If you have opened any dialog box you can access the help function by pressing the F1 key.

3.9.2 Command Using Help

The purpose of this function is to start the Windows help informing you on how to use the help system.

3.9.3 Command About...

This function displays information about your software release.

In addition, the about box displays a list of the *.dll files used in order to check the versions of the different modules.

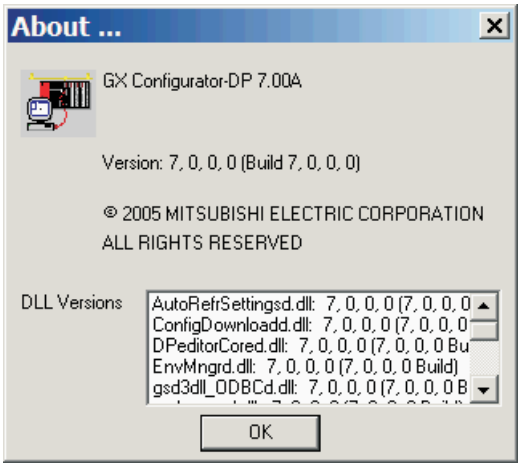

About ...
GX Configurator-DP 7.00A
Version: 7, 0, 0, 0 (Build 7, 0, 0, 0)
© 2005 MITSUBISHI ELECTRIC CORPORATION
ALL RIGHTS RESERVED
DLL Versions
AutoRefrSettingsd.dll: 7, 0, 0, 0 (7, 0, 0, 0
ConfigDownloadd.dll: 7, 0, 0, 0 (7, 0, 0, 0
DPeditorCored.dll: 7, 0, 0, 0 (7, 0, 0, 0 Bu
EnvMngrd.dll: 7, 0, 0, 0 (7, 0, 0, 0 Build)
gsd3dll_ODBCd.dll: 7, 0, 0, 0 (7, 0, 0, 0 B
OK

Fig. 3-35:
Program information

4 PROFIBUS/DP Interface

4.1 Parameter Setting for PROFIBUS Master Modules

4.1.1 Introduction and Overview

This chapter describes how to generate the parameter settings for the **A(1S)J71PB92D**. Differences to the parameter setting for other PROFIBUS master modules are mentioned explicitly.

After selecting the command **New** in the **File** menu (see chapter 3 for details) choose the module type **PROFIBUS/DP (A(1S)JPB92D).**

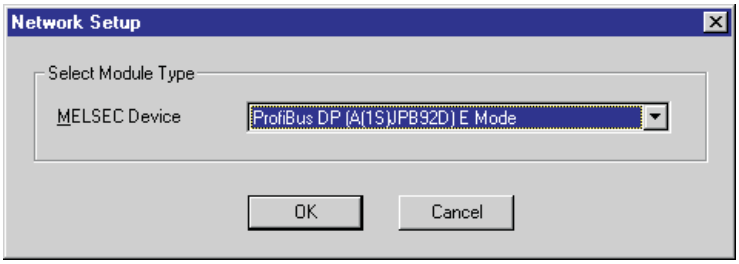


Fig. 4-1:
DP master selection

The PROFIBUS/DP modules (A(1S)J71PB92D and QJ71PB92D) support an advanced buffer memory management in 244 byte mode (operating mode E) with larger and more flexible data telegrams and thus less delay in the sequence program.

The 32 byte mode (operating mode 0) is provided for compatibility reasons with the MELSEC ProfiMap 1.0 software and with the previous A1SJ71PB92D modules.

4.1.2 Graphical network editor

After you have opened a project the *graphical network editor* appears:

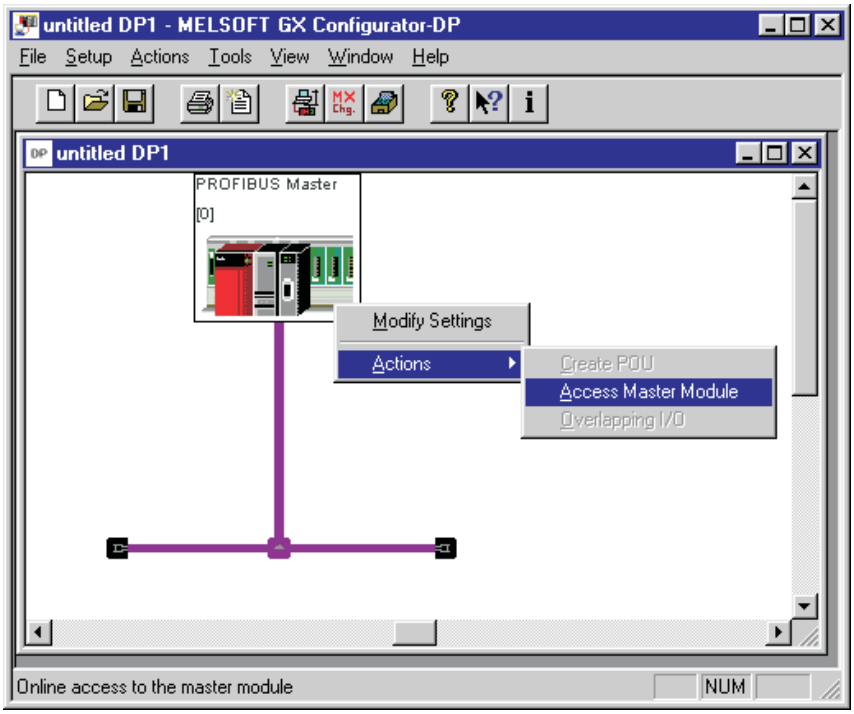


Fig. 4-2: *Graphical network editor*

Within this window you can edit and add devices. For this purpose the current window is devided into hidden squares. When you click on the window a square appears and you can add a new device.

The following parameters can be edited:

- Master settings
- Bus parameters
- Slave parameter settings

Double-click on any item to edit its parameters and settings.

Right-click on any item to open a context menu.

The content of the context menu item **Actions** is identical to the main menu item **Actions** (refer to chapter 3).

4.1.3 Master Settings

To access the master settings from the graphical network editor:

- Double-click on the master module or
- Right-click on the master module to open the context menu and select **Modify Settings**

Within the **Master Settings** the baud rate, different addresses and other parameters for the PROFIBUS modules can be set.

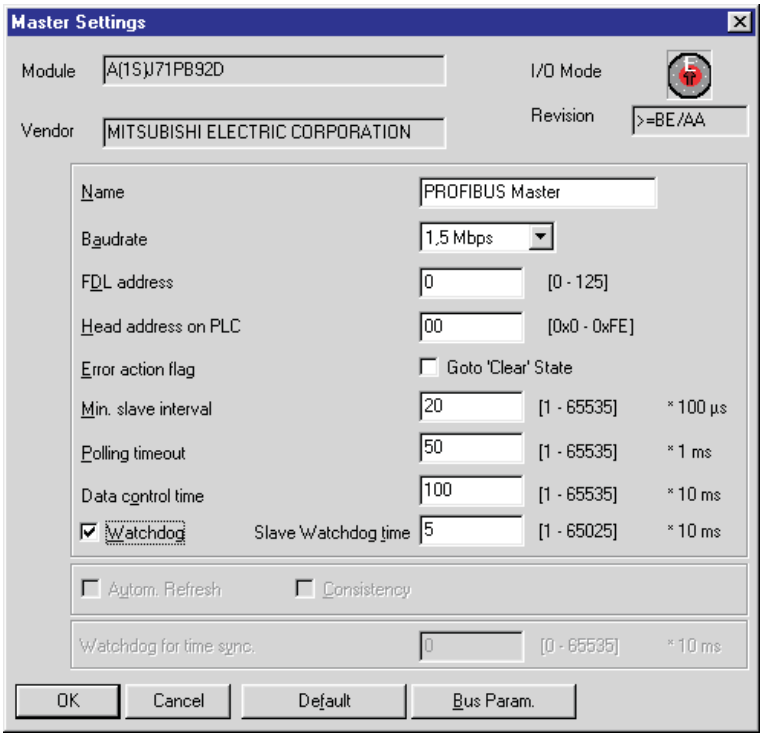


Fig. 4-3:
Master settings for A(1S)J71PB92D or FX3U-64DP-M

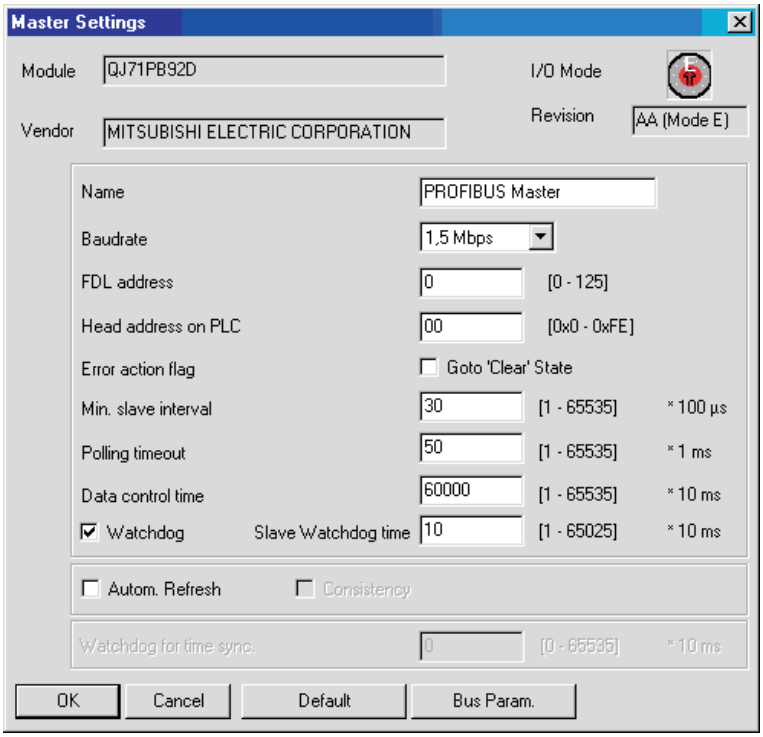


Fig. 4-4:
Master settings for QJ71PB92D

For PROFIBUS modules supporting DP V2, i.e. the QJ71PB92V, the **Master Settings** dialog is extended by the input of the clock synchronization interval **Watchdog for time sync.** This parameter is only displayed in gray for the other PROFIBUS modules:

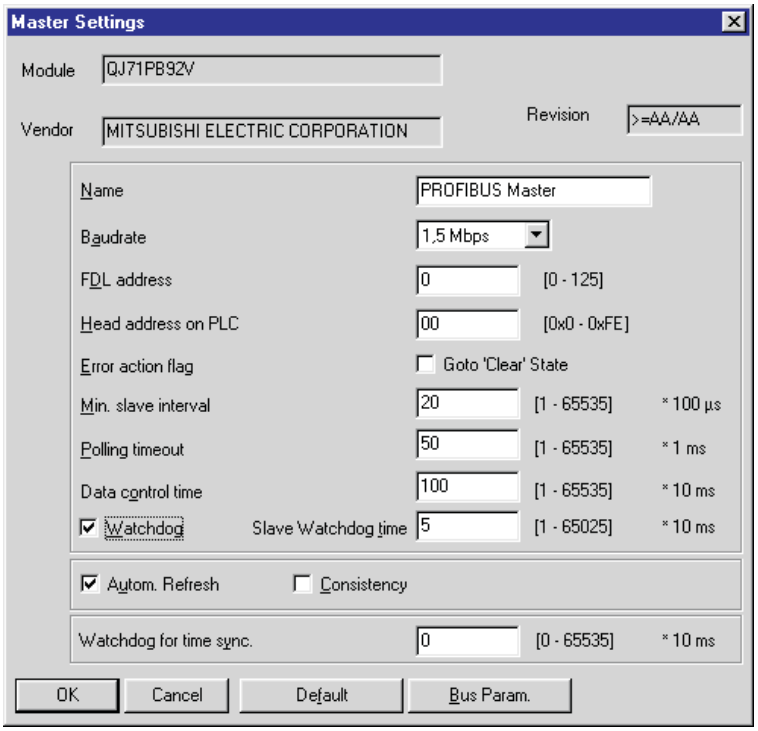


Fig. 4-5: *Different master settings for QJ71PB92V*

Communications parameters of Master Settings

Parameter	Range	Meaning
Name	—	Shows the project specific name of the master
Baud Rate	9.6 kbps – 12.000 Mbps	Transfer rate for the communication. Define a baud rate that is supported by all slaves.
FDL address	0–125	FDL address (station number)
Head address on PLC	0x0–0xFE	Module head address on the base unit
Error action flag	—	Output processing after failure. Select this option if you want to have the outputs shut off in case of error occurence (recommended for drives, inverters etc.). In practice this means: After occurrence of any network error all outputs of the network are turned OFF and no diagnostic information from the slaves is returned.
Autom. Refresh (Q series master only)	—	Sets the automatic refresh parameter for the PROFIBUS master
Consistency (Q series master only)	—	Ensures data consistency

Tab. 4-1: *Communications parameters of Master Settings*

NOTE If you change the baud rate, power off the slaves. Otherwise the slaves cannot synchronize with the newly defined baud rate.

Timing parameters of Master Settings

Parameter	Range	Meaning
Min. slave interval	1–65535 x 100 µs	Smallest allowed period of time between two slave poll cycles. This ensures that the sequence of function requests from the DP master can be handled by the DP slave. This value is valid for all installed slaves. The slowest slave defines this value.
Polling timeout	1–65535 x 1 ms	In case of master-master communication this parameter specifies the max. amount of time it may take the requestor to fetch the response.
Data control time	1–65535 x 10 ms	This parameter defines the period of time during which the master module notifies the slave operation status. This time is 6 times longer than the watchdog control of slaves.
Watchdog	ON/OFF	This checkbox enables the watchdog checking in all slaves.
Slave Watchdog time	1–65025	When the checkbox **Watchdog** is checked (ON), this specifies the maximum time without communication, after which the slave will regard the connection to the master to be broken. If the slave supports DPV1, the unit will automatically be set to either "10 ms" or "1 ms", depending on the setting of the "Watchdog Timebase" flag in the user parameters of the slave. **NOTE:** The unit is only changed, if the WDT option is enabled specifically for a slave. If WDT has been enabled via the master, all slaves must use the default timebase of 10ms.
Watchdog for time sync. (QJ71PB92V only)	0–65535 x 10 ms	This parameter specifies the interval, in which the time master broadcasts the current system time.

Tab. 4-2: *Timing parameters of Master Settings*

If you want to use the factory set default values click on Default and all values are set to the standard values.

Autom. Refresh (Q series master only)

The automatic refresh function must be activated to enable the consistency function (see below). The automatic refresh function sets the automatic refresh parameter for the PROFIBUS master in the parameter file stored in the System Q CPU. This file manages parameter data for all special function modules of the System Q.

With set automatic refresh parameter the input, output, and diagnostic/ communication areas of the PROFIBUS master are transferred to a user definable area in the CPU. This way, they can be accessed directly and fast without using a FROM/TO instruction.

The parameter file for the PROFIBUS master corresponding to a specific GX Configurator-DP project can be setup and generated in the dialog **Setup/AutoRefresh** (see page 3-18).
The autorefresh settings in the CPU can be updated together with the download of the configuration to the PROFIBUS module (see page 3-21 and chapter 6).

NOTE | If you create a new Q series master project, the **Autom. Refresh** option is set by default.

For details refer to the hardware manual of the Q series master module.

Use automatic refresh function in combination with the intelligent function module utility of the GX (IEC) Developer:

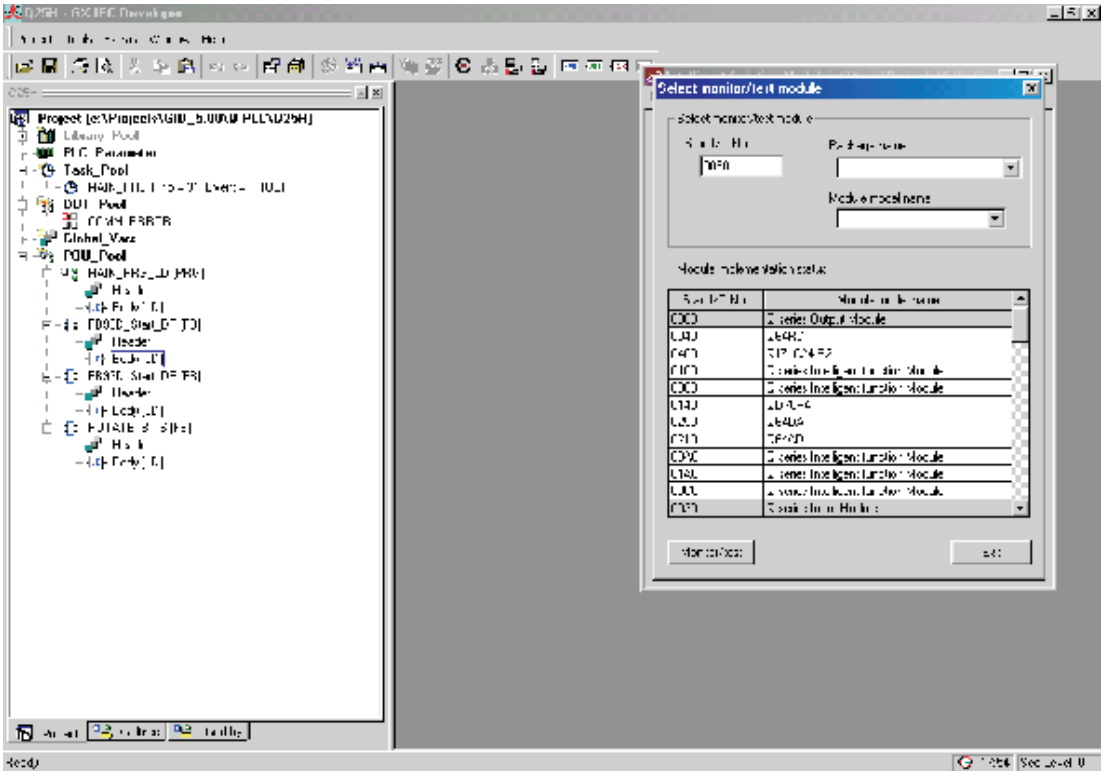
Because the intelligent function module utility will overwrite any autorefresh settings in the PLC CPU, it is necessary to read existing settings from the CPU first in order to preserve the settings made for PROFIBUS Q series master module.
Note that instead of the name of the profibus-module a "*" is shown.
The following steps are required, if autorefresh settings are used for both PROFIBUS and other intelligent function modules:

① For PROFIBUS modules add/update autorefresh settings directly in the PLC CPU by selecting the corresponding option when downloading the PROFIBUS configuration with GX Configurator-DP.

② Open the "Intelligent funtion Module utility" in GX (IEC) Developer.

③ Read the existing configuration from the PLC.

④ Add/update autorefresh settings for other modules (e.g. A/D- and D/A-converter modules).

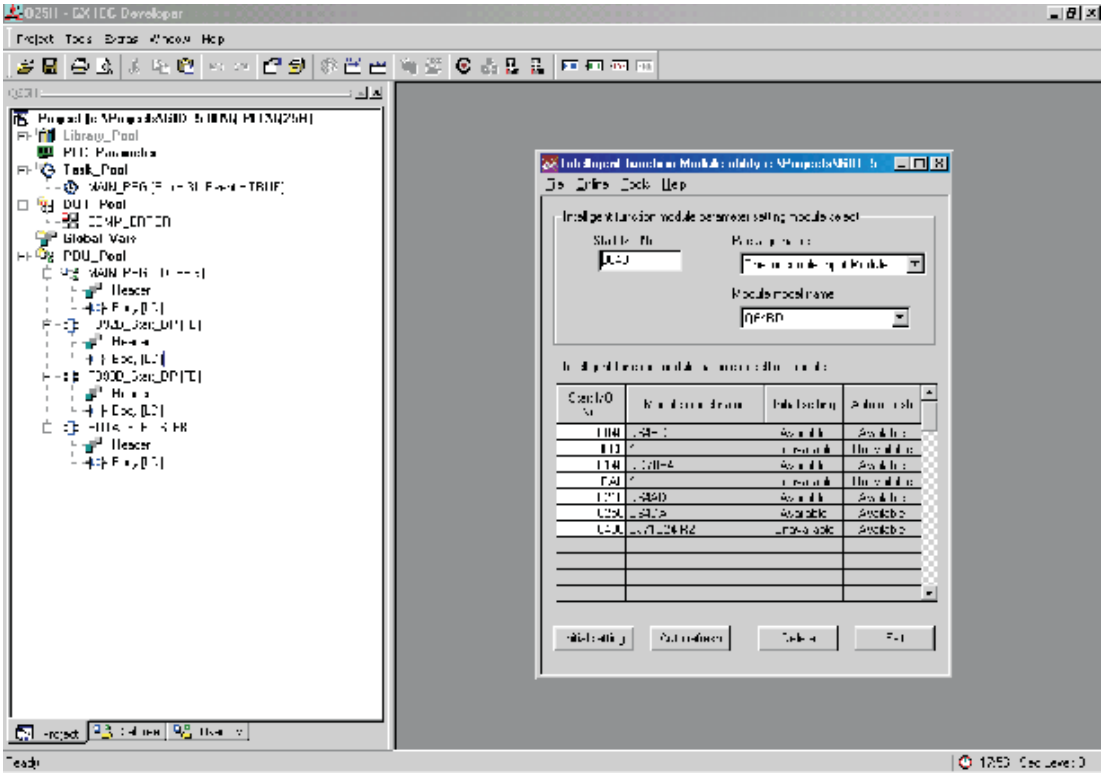


⑤ Delete obsolete entries, for example for PROFIBUS modules, which have been removed or placed to a different head address.

⑥ Overwrite the existing autorefresh settings on the PLC with the settings from the "Intelligent function Module utility".

⑦ Leave the "Intelligent function Module utility".

⑧ You can now check the autorefresh settings in the "Current Autorefresh Settings" page, which is accessible from the web browser interface of GX Configurator-DP.



Consistency (Q series master only)

The automatic refresh function (see above) must be activated to enable the consistency function. Otherwise e.g. output data for a slave may be set in the slave in several segments and not in a single PROFIBUS cycle.

The consistency function can be activated for System Q CPUs from OS version B (Sep. 2000). The consistency function interlocks simultaneous access to the buffer memory by the CPU and the DP master. This way, data consistency especially required for high-speed applications is automatically ensured.

This interlock mechanism slightly decreases the transfer speed. Therefore, only enable the consistency function, if you require data consistency.

For details refer to the hardware manual of the Q series master module.

4.1.4 Bus Parameters

To access the bus parameters from the graphical network editor:

- Double-click on the PROFIBUS line or
- Right-click on the PROFIBUS line to open the context menu and select **Modify Settings** or
- In the **Master Settings** dialog click on the **Bus. Param.** button

This function allows to select the baud rate and to modify any parameters like timeouts, which are related to the baud rate. The last settings made are stored independently for each baud rate, so that by selecting a different baud rate these settings are shown again.

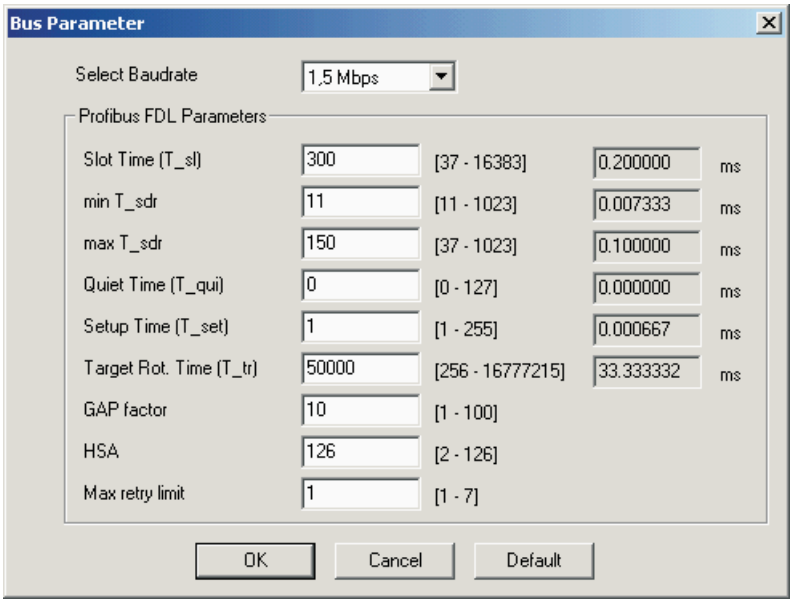

Bus Parameter
Select Baudrate
1,5 Mbps
Profibus FDL Parameters
Slot Time (T_sl) 300 [37 - 16383] 0.200000 ms
min T_sdr 11 [11 - 1023] 0.007333 ms
max T_sdr 150 [37 - 1023] 0.100000 ms
Quiet Time (T_qui) 0 [0 - 127] 0.000000 ms
Setup Time (T_set) 1 [1 - 255] 0.000667 ms
Target Rot. Time (T_tr) 50000 [256 - 16777215] 33.333332 ms
GAP factor 10 [1 - 100]
HSA 126 [2 - 126]
Max retry limit 1 [1 - 7]
OK
Cancel
Default

Fig. 4-6: *Bus parameters*

General timing factors are displayed in recalculated form based on the selected baud rate and absolute time durations. The conversion factors are the following:

Item	Meaning	Range	Remark
Baud Rate	Transfer rate	see selection	Must be supported by all slaves
T_sl	Slot time	37–16383 x t_bit	Max. Interval to wait for response
min T_sdr	Min. Station delay of responder	11–1023 x t_bit	
max T_sdr	Max. Station delay of responder	35–1023 x t_bit	
T_qui	Quiet time	0–127 x t_bit	T = 0, if no repeater present
T_set	Setup time	1–255 x t_bit	
T_tr	Target rotation time	256–16777215 x t_bit	
GAP factor	Controls the GAP update time (T_gud)	1–100	
HSA	Highest station address	2–126	
Max. retry limit	Max. number of retries	1–7	

Tab. 4-3: *Items in Bus Parameter dialog*

When pressing the Default button all values are set to their default values, especially for the currently selected baud rate.

NOTE

If you change the baud rate of an existing PROFIBUS/DP network, power off the slaves. Otherwise the slaves cannot synchronize with the newly defined baud rate.

The inputs are checked against the input limits when leaving the dialog with the OK button. Additionally the following consistency checks are performed:

- min T_sdr < max T_sdr
- T_qui < min T_sdr
- max T_sdr < T_sl
- T_sl < T_tr

NOTE

If you are not an experienced PROFIBUS network administrator the Bus Parameters should not be changed except in the following cases:

a) More than 15 slave stations are implemented (target rotation time has to be calculated again).
b) The network consists of more than 1 master (target rotation time has to be calculated again).
c) PROFIBUS/DP and PROFIBUS/FMS operation are used in mixed mode (FMS parameters have to be defined)

For the correct parameter setting of the target rotation time TTR (t_tr) please refer to the PROFIBUS standard DIN19245 part 3. However, it is important that the target rotation time is large enough to enable the master module to poll each defined slave once per token cycle.

4.1.5 Insert DP Slave

In the graphical network editor right-click on the PROFIBUS line to open the context menu. Select **Insert DP-Slave** to access the **GSD Device Database**. After having selected a **Slave Device Group**, a list of all slave models assigned to the respective group is displayed. For the selected slave the vendor and revision string, the bitmap and the path of the GSD file and the bitmap file are displayed (refer to the section Device Database in chapter 3 for further details).

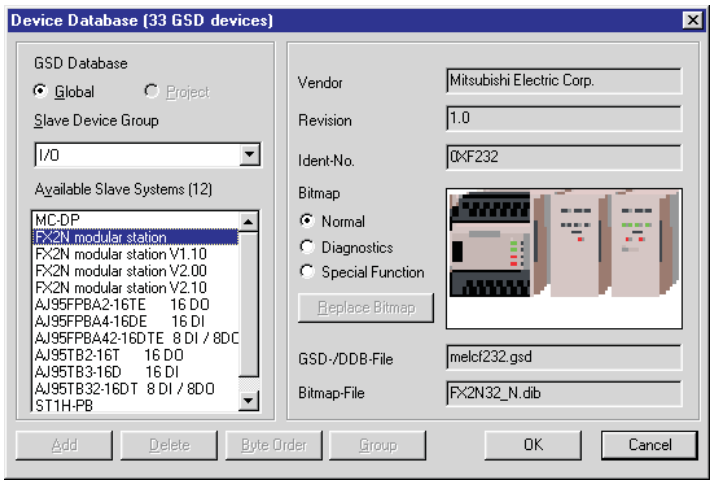


Fig. 4-7:
Inserting a DP slave from the device database

When a model is selected and the OK button has been pressed, the **Slave Parameter Settings** dialog appears.

4.1.6 Duplicate Slave

The configuration of a modular DP slave like the ST1H-PB involves several steps like selecting the modules and setting the module specific user parameters. If a PROFIBUS network includes several slaves of the same type, this may require to repeat the same actions for each slave again. To simplify the procedure it is possible to add an exact copy of an already existing slave to the project again.

Select a slave and press the right mouse button to display the slave-specific context menu. This menu contains the entry **Duplicate Slave**. Click on this menu item to get an additional slave with the same configuration (selected modules, user parameters etc.) inserted into the Profibus network. This avoids inserting a new slave of the same type, selecting the modules again and adjusting the parameter settings, which is both error-prone and labour-intensive.

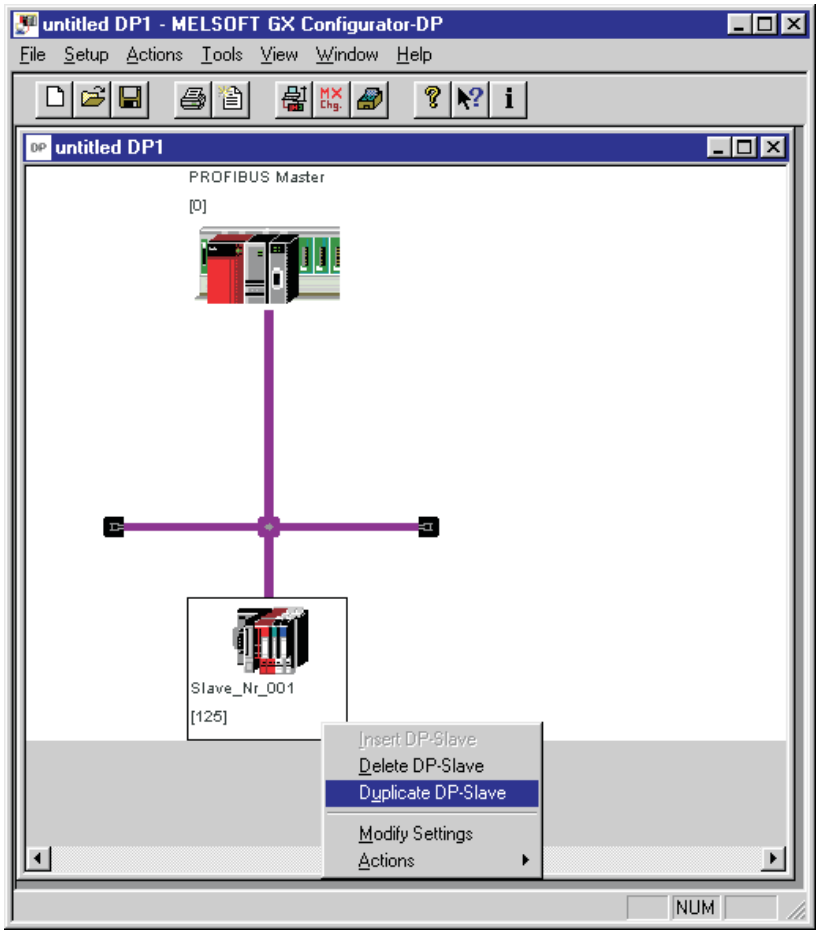


Fig. 4-8: *Inserting a copy of a DP slave*

NOTE

The new slave has identical settings compared to the original one. For this reason the FDL address has to be adjusted and the slave name must be changed after duplicating the slave. Otherwise the identical FDL address and name in two slaves will violate the restriction of a unique FDL-address and name.

4.1.7 Slave Parameter Settings

To access the slave parameter settings from the graphical network editor:

- Double-click on a DP slave or
- Right-click on a DP slave to open the context menu and select **Modify Settings**

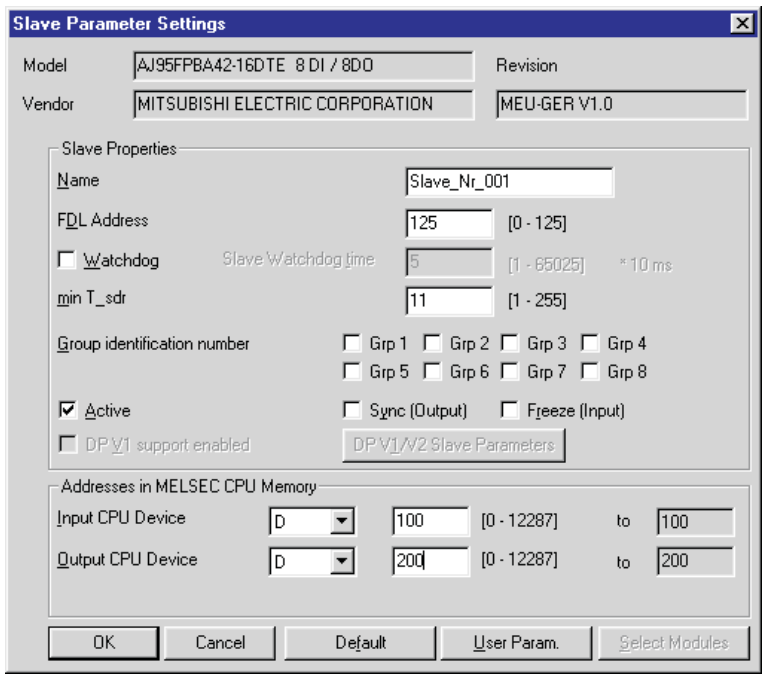


Fig. 4-9:
Slave parameter settings for the PROFIBUS module A(1S)J71PB92D

For the other PROFIBUS modules there is an additional **Swap I/O Bytes** function:

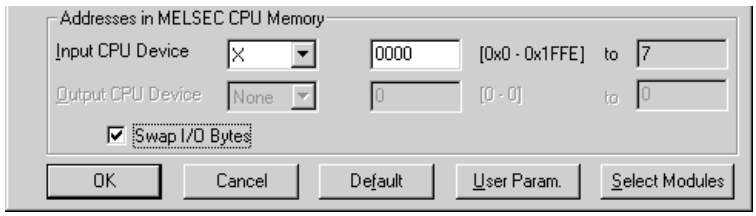


Fig. 4-10:
Slave parameter settings

In the upper part of the window, the name of the selected device and the vendor name are displayed.

If you have selected a wrong device, you can leave this window with the Cancel button. You then jump back to the **Network Configuration** menu.

When the correct model is displayed you have to set the parameters listed in the following table.

When pressing the Default button all values are set to their default values.

Parameters in the **Slave Parameter Settings** have the following meaning:

Item	Purpose	Shortcut
Name	The name of the slave can be defined. This is for documentation purpose only.	Alt N
FDL_address	This item is used to define the station address of the slave.	Alt D
Watchdog	Click on the white box or type the shortcut if you want to use the watchdog timer for this device. The check box enables the watch dog control of the slave. The slave will check whether the master was in communication with the slave within the defined watchdog time. If the watchdog time is exceeded the outputs are turned to the save state.	Alt W
Watchdog time	If you have selected the Watchdog function you must define the watchdog time interval of the slave. Make sure that the data control time in the **Master Parameter** setting is 6 times longer than the slaves watchdog time.	Alt T
min T_sdr	This is the minimum waiting time for a DP slave until it is allowed to send response frames to the DP master. Do not change this value.	Alt M
Group identification number	PROFIBUS/DP allows to transmit control commands (such as sync or freeze) from the master to one slave, a group of slaves or all slaves at the same time. The control commands are based on multicast function. This means that slaves with the same group number operate in a synchronized way with each other. A slave can belong to several groups. You can use the boxes to allocate the group for the slave.	Alt G
Active	When this option is activated you get information whether the defined slave really exists (max. 60 slaves are possible). With this function you can define slaves which are not really existant but should be added physically later on.	
Sync①	If this option is activated a synchronous switching of all outputs in the network (for simulation of a time shifted END instruction) is possible.	
Freeze①	If this option is activated a synchronous switching of all inputs in the network (for simulation of a time shifted END instruction) is possible.	
DP V1 support enabled②	If this option is activated the master will be informed that the respective slave will support DP V1 for the MS1 connections. This enables the button for opening the dialog for DP V1/V2 parameters.	
DP V1/V2 Slave Parameters②	This button opens the dialog for DP V1/V2 parameters.	

① only available for slaves where this function is possible (stated at GSD file)

② only available for projects for QJ71PB92V and FX3U-64DP-M
The GSD file of the slave must contain the keyword "DPV1_Slave" with the value "1".

Tab. 4-4: *Items in the **Slave Parameter Settings** dialog*

Addresses in MELSEC CPU Memory

After having made all the necessary entries the start address for devices corresponding to the I/O buffer memory of the master module must be defined in the section **Adresses in MELSEC CPU Memory**. The according device range used in the CPU memory is calculated automatically. This dialog will match PROFIBUS/DP data to PLC devices.

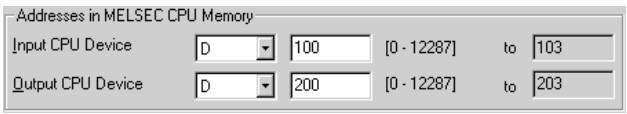


Fig. 4-11:
Addresses in MELSEC CPU memory

Swap I/O Bytes (not for A(1S)J71PB92D)

Several PROFIBUS/DP slave products have a reversed byte order in a word device compared to Mitsubishi. Activate the **Swap I/O Bytes** function to have the byte order reversed by the PROFIBUS master.

DP V1/V2 Slave Parameters

To access the DP V1/V2 slave parameters:

- Check the option **DP V1 support enabled** in the **Slave Parameter Settings** menu and click on the button **DP V1/V2 Slave Parameters**.

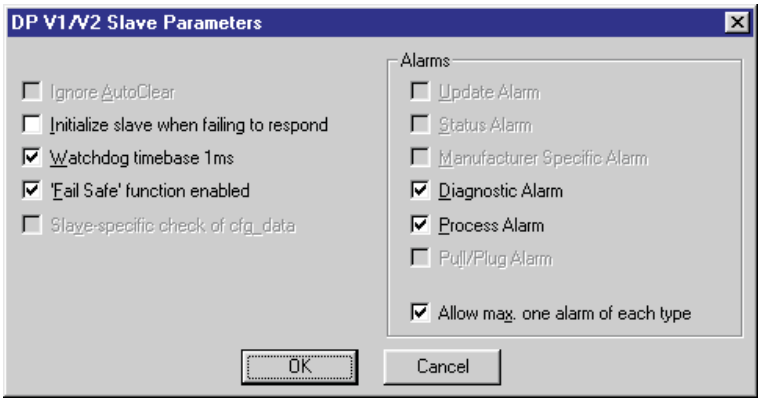


Fig. 4-12: *DP V1/V2 Slave Parameters*

The parameters have the following meaning:

Item	Purpose when checked
Ignore AutoClear	AutoClear is ignored.
Initialize slave when failing to respond	The slave will be initialized when it fails in responding.
Watchdog timebase 1ms	The slave interpretes the given value for watchdog time as a multiple of 1 ms instead of 10 ms
'Fail Safe' function enabled	The slave works in the 'FailSafe' mode.
Slave-specific check of cfg_data	The slave applies a slave-specific check to the configuration data sent by the master.
Update Alarm	The slave can send 'Update' alarms.
Status Alarm	The slave can send 'Status' alarms.
Manufacturer Specific Alarm	The slave can send 'Manufacturer Specific' alarms.
Diagnostic Alarm	The slave can send 'Diagnostic' alarms.
Process Alarm	The slave can send 'Process' alarms.
Pull/Plug Alarm	The slave can send 'Pull/Plug' alarms.
Allow max. one alarm of each type	Only one alarm of each type can be sent.

Tab. 4-5: *Items in the **DP V1/V2 Slave Parameters** dialog*

NOTE

If the watchdog time has been set for all slaves via the master parameter settings, the option for setting the WDT timebase to 1 ms is disabled.

Extended User Parameters

To access the extended user parameters from the graphical network editor:

- Right-click on a DP slave to open the context menu and select **User Parameters** or
- In the **Slave Parameter Settings** dialog click on the **User Param.** button

The user parameters for the slave device can be defined individually. In case that the products GSD file supports extended user parameter click on User Param. to access the following dialog box.

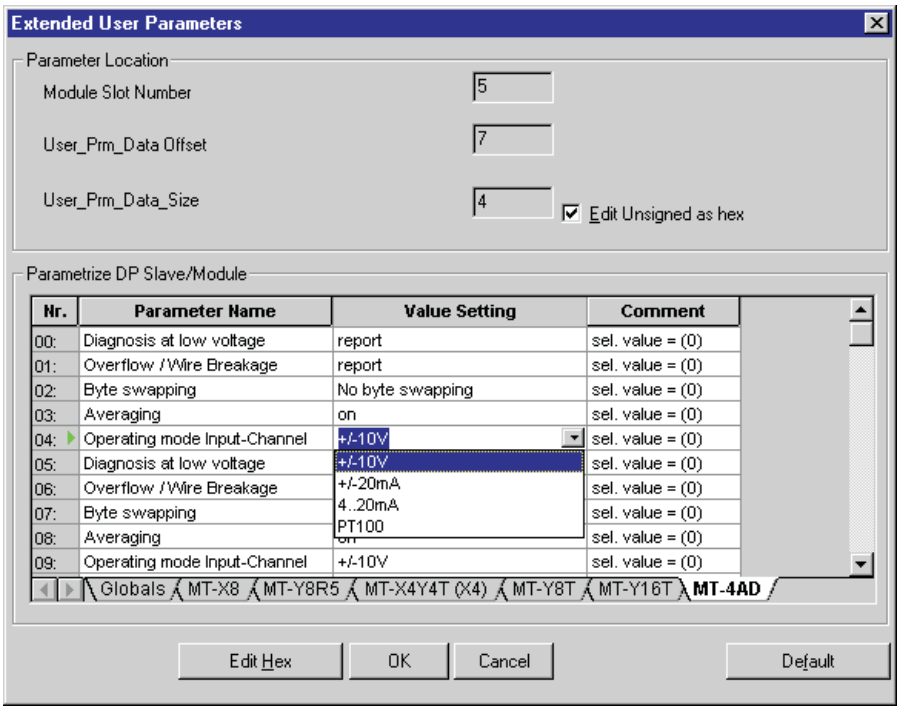


Fig. 4-13: *Extended user parameters*

The **Extended User Parameters** are not standardized but depend on the slave. The purpose of the user parameters is to parameterize the individual slave. For example the slave is an analog input device and the operating mode of the input channel is to be parameterized by the startup of PROFIBUS/DP. Then you can specify this operating mode here. Click on the value setting if you want to change and select the desired setting. All supported settings are displayed in clear but can also be changed within a simple hex editor. If you prefer to edit unsigned integer values as hex values, check the Edit Unsigned as hex box.

The width of the columns can be varied by placing the mouse pointer between two table headings until it changes to a double-arrow and then clicking and dragging to the left or to the right.

Click on Edit Hex to access the **Hex Editor** for the **Slave User Parameters**. The relevant area for the selected module is indicated by coloured background and arrows. The address is shown in clear as "tool tip".

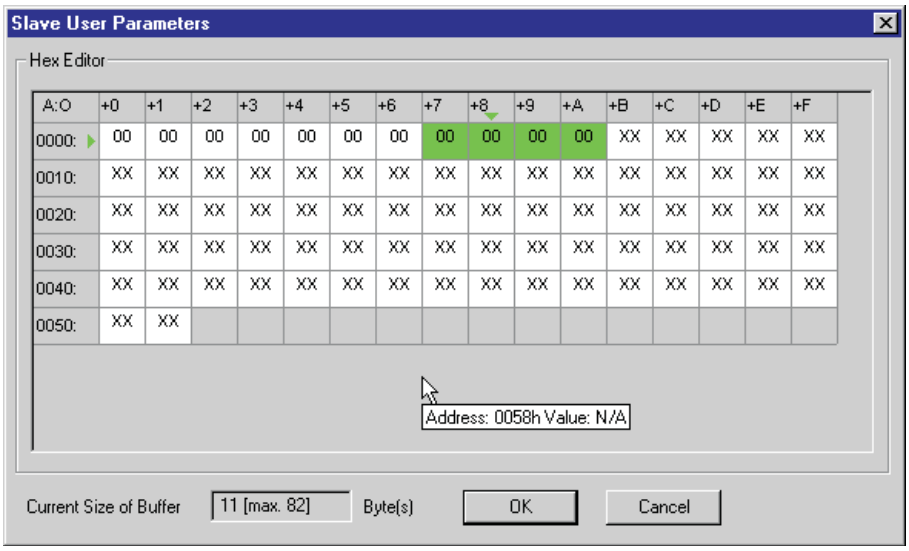

Slave User Parameters
Hex Editor
A:O +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +A +B +C +D +E +F
0000: 00 00 00 00 00 00 00 00 00 00 00 XX XX XX XX XX
0010: XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX
0020: XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX
0030: XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX
0040: XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX XX
0050: XX XX
Address: 0058h Value: N/A
Current Size of Buffer
11 [max. 82]
Byte(s)
OK
Cancel

Fig. 4-14:
Hex editor

Be careful when editing these parameters via the hex editor. You should have a detailed slave documentation by the manufacturer to prevent errors in the parameterization.

NOTE

These parameters should only be changed by experienced network administrators. In general the Slave User Parameters should not be changed.
If no extended user parameters are available at the slaves GSD file, this dialog is opened. Consult your slave device manufacturer to generate correct settings.

Slave Module Selection

When an I/O module is selected the type of module can be defined after clicking on Select Modules . This button is enabled depending on the GSD file of the selected PROFIBUS/DP slave.

The following dialog box is displayed:

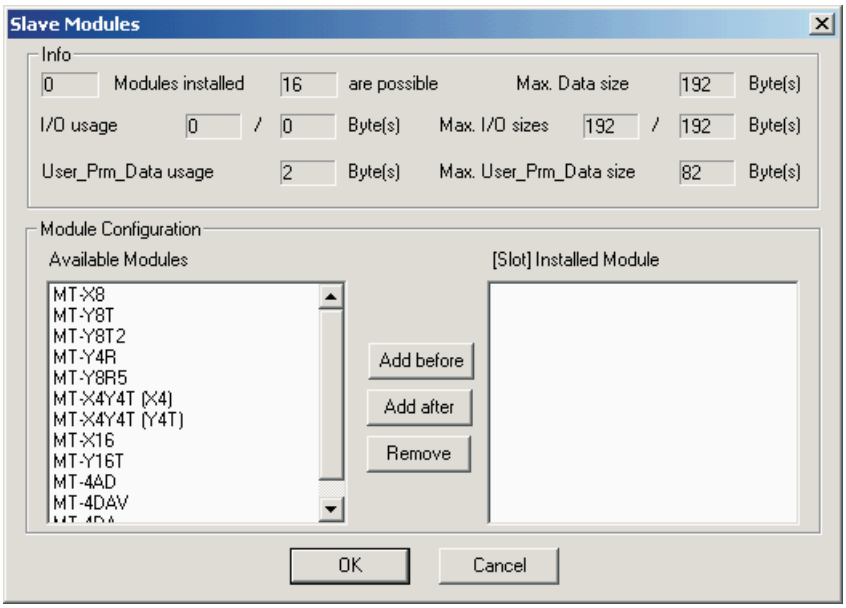


Fig. 4-15: *Slave module selection*

PROFIBUS/DP offers the possibility to support modular slave devices. The slave device is the summary of all modules installed to the slave. The GSD file includes all selectable modules for the slave device. Mark a module in the right list of **Installed Modules**. Then select a module in the left list of **Available Modules** and press the **Add before** or **Add after** button. If you press the **Add before** button, the module is inserted before the selected entry in the **Installed Modules** list or, in case **Add after** button is pressed, the module is inserted after the marked module in the **Installed Modules** list. To remove a module from the **Installed Modules** list, select the module and press the **Remove** button. The slot number they are added to is shown beside the installed modules. When you want to append a module at the end of the list, no module must be selected in the **Installed Modules** list, because otherwise the new module will be inserted before the selected one. To remove the selection, remove the selected module. Then no module is selected anymore and modules can be appended at the end of the list.
GX Configurator-DP automatically determines the maximum possible number of modules per slave, the maximum allowed length of the data telegram depending on the installed modules, and the maximum user parameter data size. It also calculates the number of I/O bytes used by the modules you install and user parameter bytes thus preventing you from exceeding the supported length of telegram.

If you have created a new Profbus DP project with a 32-byte array (operation mode 0), it is not allowed to have more than 32 input bytes plus 32 output bytes.

In case you exceed the maximum telegram length GX Configurator-DP will ask you to reduce the amount of installed modules.

After cklicking OK the **Slave Parameter Settings** dialog appears again.

NOTE

After having made all settings in the **Slave Modules** windows you have to define the start address in the CPU memory in the dialog box **Slave Parameter Settings**.

Generic Slave Module Type

Some slave GSD files do not contain module descriptions, but require the module configuration data ('cfg_data') to be constructed in the configuration tool via a so-called 'Universal Module'.
If a slave GSD file does not contain module definitions, GX Configurator-DP displays the entry **Universal** in the **Slave Modules** dialog. One or more universal module entries can be added to the **Installed Modules** list. The maximum input/output size for each module is 16 words or 32 bytes.

NOTE | Ensure that the slave can work with the made settings.

The following shows a slave with three selected **Universal** modules.

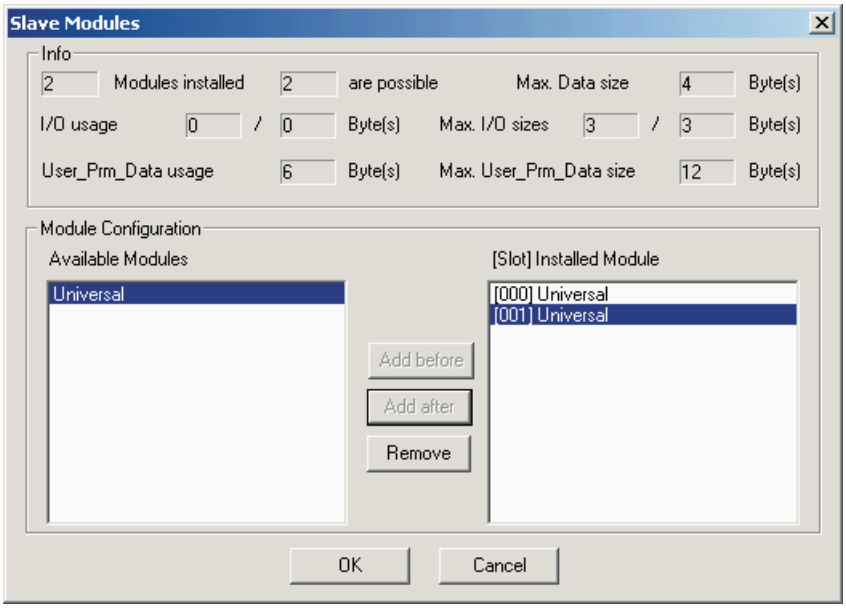


Fig. 4-16: *Slave module selection of a universal module*

When a **Universal** module entry in the **Installed Module** list is double-clicked, the **Universal Module Settings** dialog is opened and the properties of the selected universal module, i.e. consistency, input and output size, can be changed.

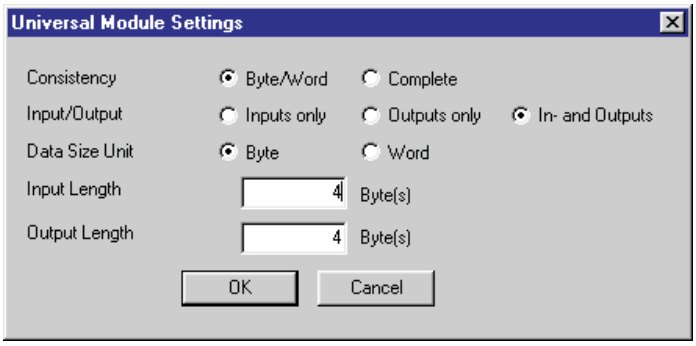


Fig. 4-17: *Universal Module Settings*

If the module should only have an input area, select the option **Inputs only** and the field for the output length is hidden.

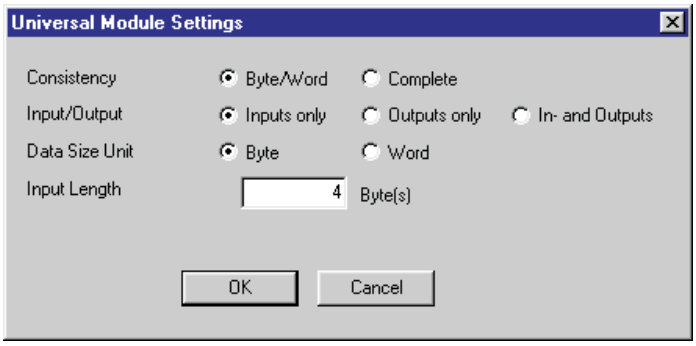


Fig. 4-18:
Universal Module Settings with inputs only

If the module should only have an output area, select the option **Outputs only** and the field for the input length is hidden.

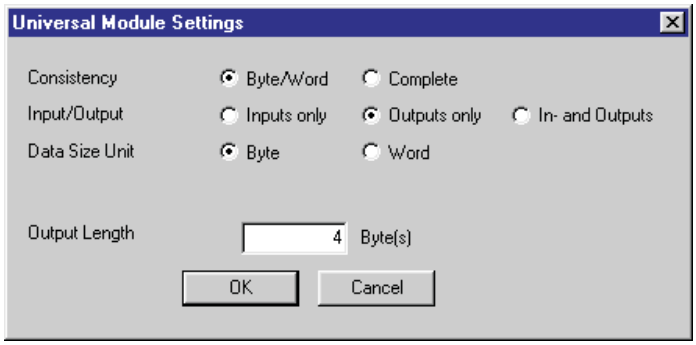


Fig. 4-19:
Universal Module Settings with outputs only

DP Network Layout

When the device configuration has been entered click OK and the bitmap for that model is inserted into the graphical network layout. The bitmap of the installed slave device is shown in the window. In addition the name and the FDL address (defined in the **Slave Parameter Setting** dialog) is stated.

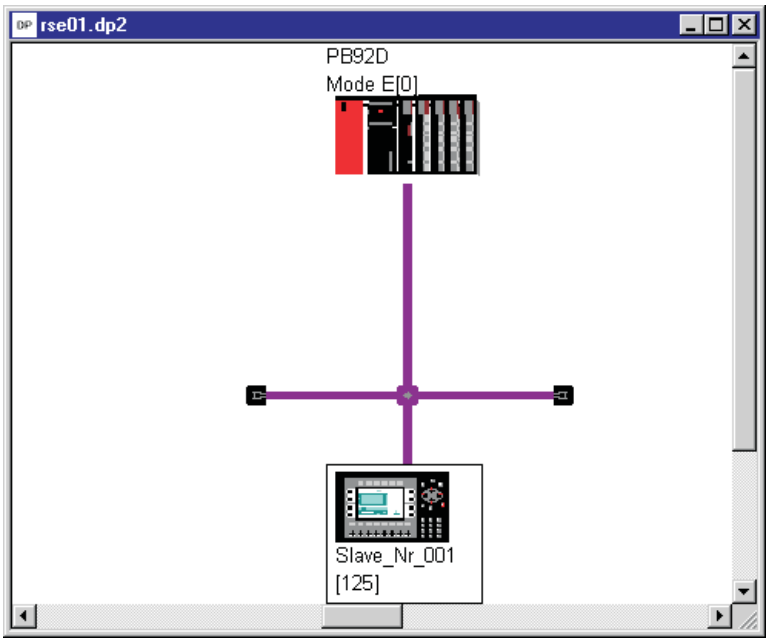


Fig. 4-20:
DP network configuration

A device is deleted by selecting it and activating the **Delete DP-Slave** command in the context menu (right mouse button) or pressing the Del key.

To modify the settings of a device, you can right-click on it and select the **Modify Settings** command from the context menu or double click on the device bitmap.

This opens the **Slave Parameter Settings** dialog (see page 4-12), if the mouse pointer is placed on a slave station.

If it is currently placed on the master station, the **Master Settings** dialog pops up (see page 4-3).

You can as well double-click on either the master, any slave, or the RS485 line to modify either the master settings, the slave parameter settings, or the bus parameters.

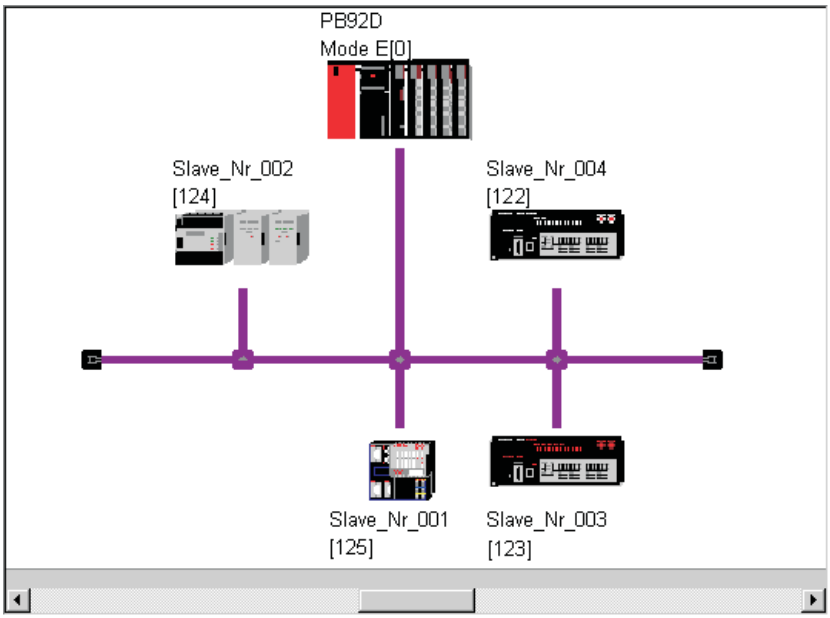


Fig. 4-21: *Completed DP network configuration*

4.1.8 Project transfer

When the whole network creation is complete, the project should be saved with the help of the **File** menu.

NOTE When you select **Save** instead of **Save as ...** the former saved project will be overwritten!

Now you can transfer the whole configuration data stored in the configuration project file (*.dp2) to the connected PROFIBUS master module. For online access to the modules refer to chapter 6.

4.2 Parameter Setting for QJ71PB93D Slave Modules

4.2.1 Introduction

The QJ71PB93D is a PROFIBUS/DP V0 slave module for System Q PLCs. It enables a DP master to access devices in a System Q CPU. System Q PLCs become powerful sub-stations accessible easily via the PROFIBUS/DP. The QJ71PB93D is configured partially by the DP master and by the configuration tool GX Configurator Client which is integrated in GX Configurator-DP.

The project file for the QJ71PB93D slave module is an XML file (not *.dp2 as for PB92D master modules).

4.2.2 Parameter setting

This chapter describes how to generate the parameter settings for the PROFIBUS slave module **QJ71PB93D**.

After selecting the command **New** in the **File** menu (see chapter 3 for details) choose the module type **PROFIBUS/DP Slave (QJ71PB93D).**

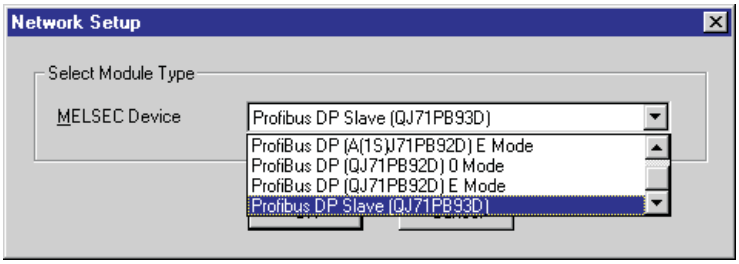


Fig. 4-22:
Module selection

After you have opened a project the following dialog for the slave parameter settings appears:

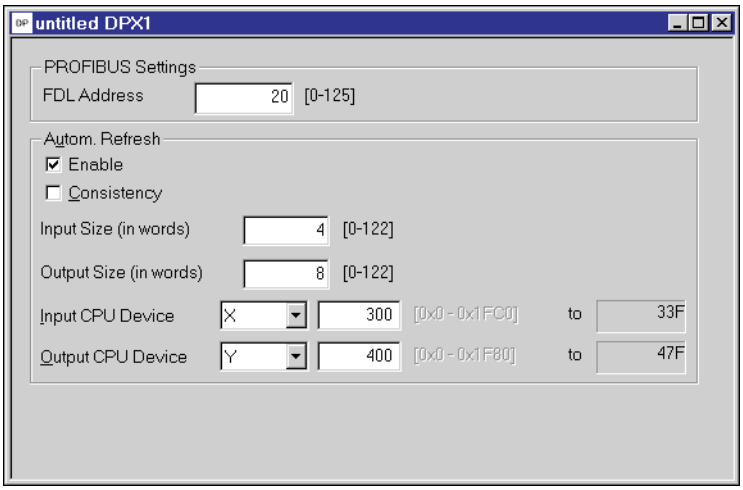


Fig. 4-23: *Slave parameter settings*

Here you specify the following parameter settings:

Item	Purpose	Shortcut
FDL_address	This item is used to define the station address of the slave.	F
Autom. Refresh	Enable, Consistency. See details below	E, C
Input Size	Specifies the size of the input area in units of words	N
Output Size	Specifies the size of the output area in units of words	U
Input CPU Device	Specifies the input device and its start address in the CPU. The according device range used in the CPU memory is calculated automatically.	I
Output CPU Device	Specifies the output device and its start address in the CPU. The according device range used in the CPU memory is calculated automatically.	O

Tab. 4-6: *Items in the slave parameter settings dialog*

Autom. Refresh

The automatic refresh function sets the automatic refresh parameters for the PROFIBUS slave QJ71PB93D in the parameter file stored in the System Q CPU. This file manages parameter data for all special function modules of the System Q.

With set automatic refresh parameter the input and output of the PROFIBUS slave are transferred to a user definable area in the CPU. This way, they can be accessed directly and fast without using a FROM/TO instruction.

For details refer to the hardware manual of the QJ71PB93D slave module.

Use automatic refresh function in combination with the intelligent function module utility of the GX (IEC) Developer:

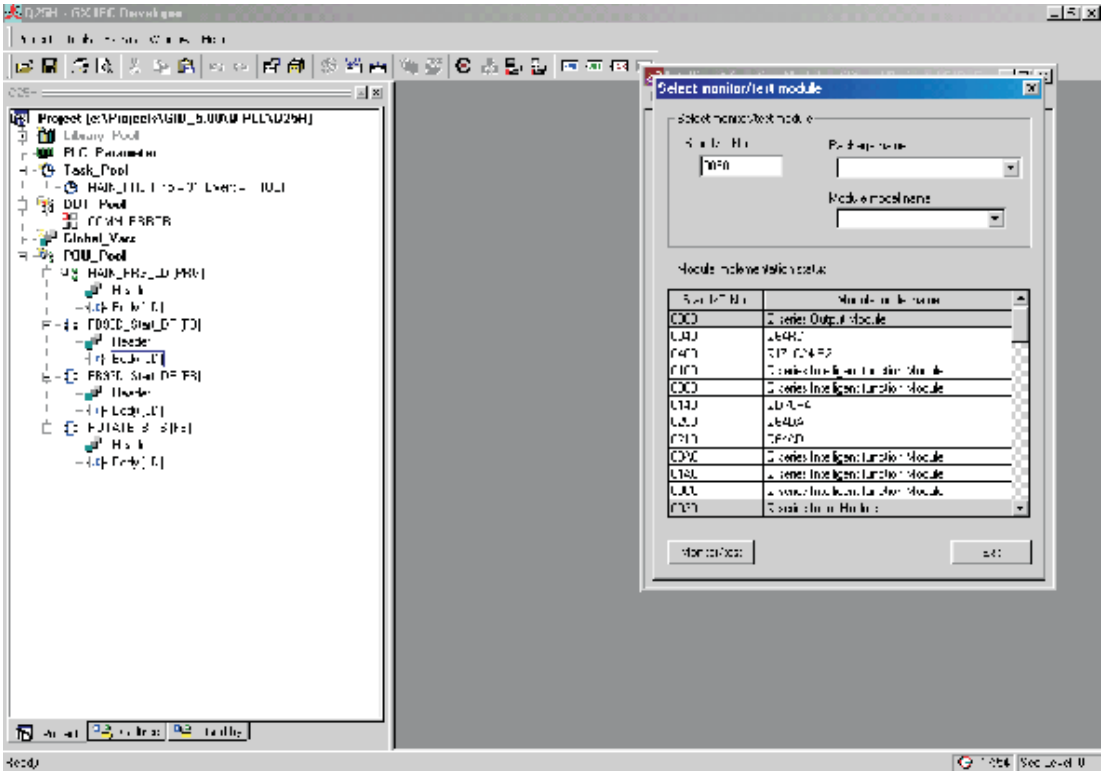
Because the intelligent function module utility will overwrite any autorefresh settings in the PLC CPU, it is necessary to read existing settings from the CPU first in order to preserve the settings made for PROFIBUS module QJ71PB92D
Note that instead of the name of the profibus-module a "*" is shown.
The following steps are required, if autorefresh settings are used for both PROFIBUS and other intelligent function modules:

① For PROFIBUS modules add/update autorefresh settings directly in the PLC CPU by selecting the corresponding option when downloading the PROFIBUS configuration with GX Configurator-DP.

② Open the "Intelligent funtion Module utility" in GX (IEC) Developer.

③ Read the existing configuration from the PLC.

④ Add/update autorefresh settings for other modules (e.g. A/D- and D/A-converter modules).

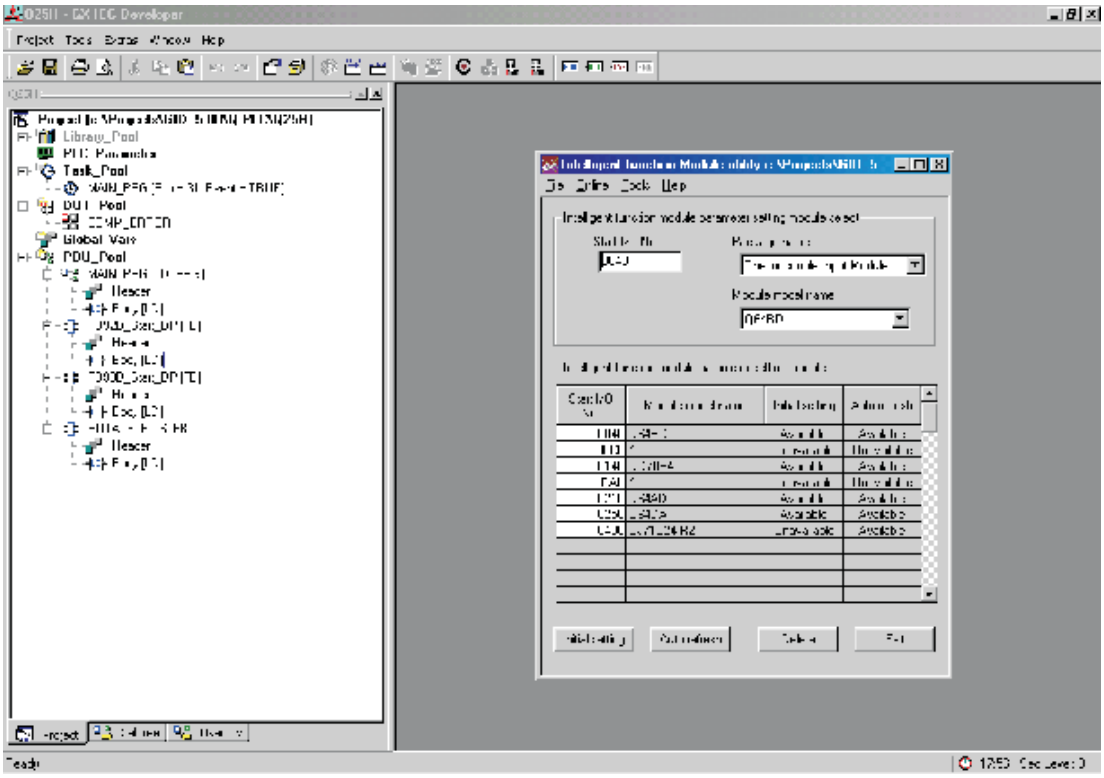


⑤ Delete obsolete entries, for example for PROFIBUS modules, which have been removed or placed to a different head address.

⑥ Overwrite the existing autorefresh settings on the PLC with the settings from the "Intelligent function Module utility".

⑦ Leave the "Intelligent function Module utility".

⑧ You can now check the autorefresh settings in the "Current Autorefresh Settings" page, which is accessible from the web browser interface of GX Configurator-DP.



Consistency

The consistency function can be activated for System Q CPUs from OS version B (Sep. 2000). The consistency function interlocks simultaneous access to the buffer memory by the CPU and the DP slave. This way, data consistency especially required for high-speed applications is automatically ensured.

This interlock mechanism slightly decreases the transfer speed. Therefore, only enable the consistency function, if you require data consistency.

For details refer to the hardware manual of the QJ71PB93D slave module.

NOTE

Only the FDL address, the autorefresh flag, and the consistency flag are transferred to the DP slave. The size settings in the slave parameter settings dialog are relevant only for the data exchange between DP slave and System Q CPU via autorefresh.

4.2.3 Project transfer

When the slave parameter configuration is complete, the project should be saved with the help of the **File** menu.

NOTE

When you select **Save** instead of **Save as ...** the former saved project will be overwritten!

Now you can transfer the whole configuration data stored in the configuration project file (*.dpx) to the connected PROFIBUS slave module. For online access to the modules refer to chapter 6.

5 Transfer Setup

5.1 Introduction

GX Configurator-DP is capable of downloading PROFIBUS/DP configuration data to the PB92D master module via serial (RS232/RS422), USB, MELSEC Ethernet or MELSECNET/10. The master module can be configured via the CPU port of a local or remote MELSEC PLC or via an Ethernet connection to your personal computer (PC).

NOTE The transfer setup is only available in master projects, not in slave projects.

For successful network settings you should be familiar with the characteristics of MELSEC Ethernet and MELSECNET/10 and refer to the corresponding manuals.

5.1.1 Supported connection types

PC (GX Configurator-DP) to PLC

- COM port to System Q CPU (RS232 or USB CPU port)
- COM port to QnA-CPU (RS422 CPU port)
- Ethernet board to QE71 (QnA Ethernet board)
- Ethernet board to QJ71E71 (Qn Ethernet board)
- COM port to A-CPU (RS 422 CPU port) only locally, no network connection
- ACPU via MAC
- COM port to FX3U-CPU (RS422 CPU port)

NOTE For access to QnA and System Q CPU via MAC select direct connection to CPU port. The PC-side serial port on the MAC must be set to the same settings as the CPU-side port, i.e. 8 databits, 1 stopbit, odd parity and baud rate as set in the respective GX Configurator-DP transfer path. You can set this parameters with the E-Designer. Select the item "Comm Settings..." in the "Transfer" menu of the E-Designer. For details refer to the Operation Manual of the E-Designer.

PLC to PLC

- None (local CPU is the PROFIBUS master host in general)
- MELSECNET/10 (PROFIBUS master is located on remote CPU rack)

5.1.2 Supported network configurations

GX Configurator-DP 7 supports MELSEC Ethernet and MELSECNET/10 connections with the following restrictions.

Restrictions:

- No support for combined MELSECNET/10 and MELSECNET/II systems
- No support for MELSECNET/II, MELSECNET/B
- No support for MELSECNET/10 multi-layer systems
- No support for MELSECNET/10 remote network systems
- Support for AnN, AnA, AnU CPU port access only as local host (no network connection)

Combination of AnU and QnA(S) CPUs in a network

- If GX Configurator-DP is connected to a QnA(S) station in a MELSECNET/10 network, the QnA(S) CPU must be switched to A mode by hardware switch, if transfer to an AnU is required.
- If QnA(S) CPUs are existing in a MELSECNET/10 network, a QnA(S) CPU must be the control station.
- If QnA(S) and AnU CPUs are existing in a MELSECNET/10, a QnA(S) CPU must be the control station. The AnU CPU can only be accessed from a QnA(S) CPU with hardware switch in A mode.

5.2 Transfer Setup Handling

5.2.1 Opening the transfer setup and defining a network connection

Click on the Transfer Setup button in the toolbar or select **Setup/Transfer Setup** from the main menu to open the transfer setup.

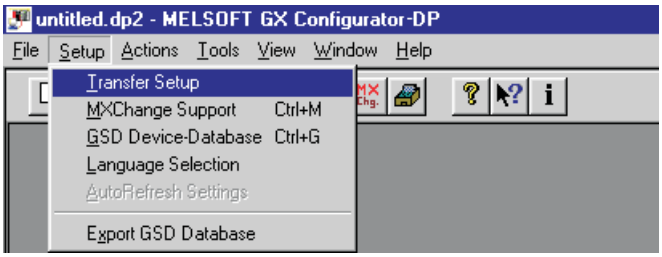


Fig. 5-1:
Select transfer setup

Define a network name. The network name is used to identify the settings for one transfer path and must therefore be unique.

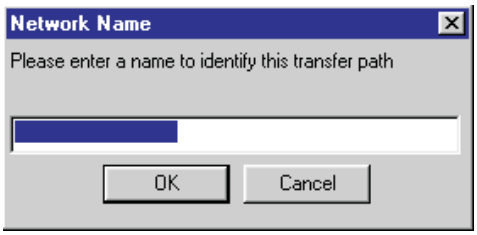


Fig. 5-2:
Define a network name

NOTE

The length of the network name is limited to 32 characters. The network name can only contain alphanumeric characters and "_", "-", " ", ",", "(", ")".

Enter a network name and click on OK.

Select a MELSECNET unit your PC is connected to. You can either access the PLC via the CPU port with a special programming cable or via an Ethernet board. Below the serial connection is selected.

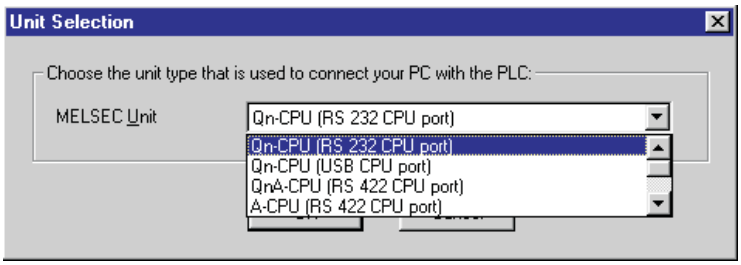

Unit Selection
Choose the unit type that is used to connect your PC with the PLC:
MELSEC Unit
Qn-CPU (RS 232 CPU port)
Qn-CPU (RS 232 CPU port)
Qn-CPU (USB CPU port)
QnA-CPU (RS 422 CPU port)
A-CPU (RS 422 CPU port)

Fig. 5-3:
Select MELSEC unit

After selecting the network module, define the **MELSEC network** across which the host CPU of the PROFIBUS master module can be accessed. The PROFIBUS master module can either be installed together with the target CPU on the same rack or on a remote CPU rack accessible across MELSECNET/10.

Below the local installation is selected.

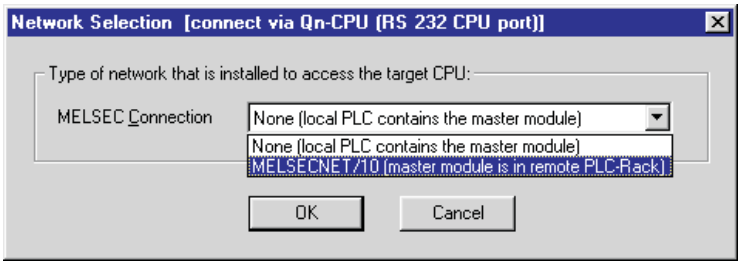

Network Selection [connect via Qn-CPU (RS 232 CPU port)]
Type of network that is installed to access the target CPU:
MELSEC Connection
None (local PLC contains the master module)
None (local PLC contains the master module)
MELSECNET/10 (master module is in remote PLC-Rack)
OK
Cancel

Fig. 5-4: *Select the network type*

NOTE

If you have connected a "A CPU" to the PC, you can only choose the local installation ("local PLC contains the master module"). In this case, the dialog in fig. 5-4 doesn't appear.

The CPU port network connection is defined using default values. Now you can edit the values directly in the network properties table.

Network properties for the CPU port connection

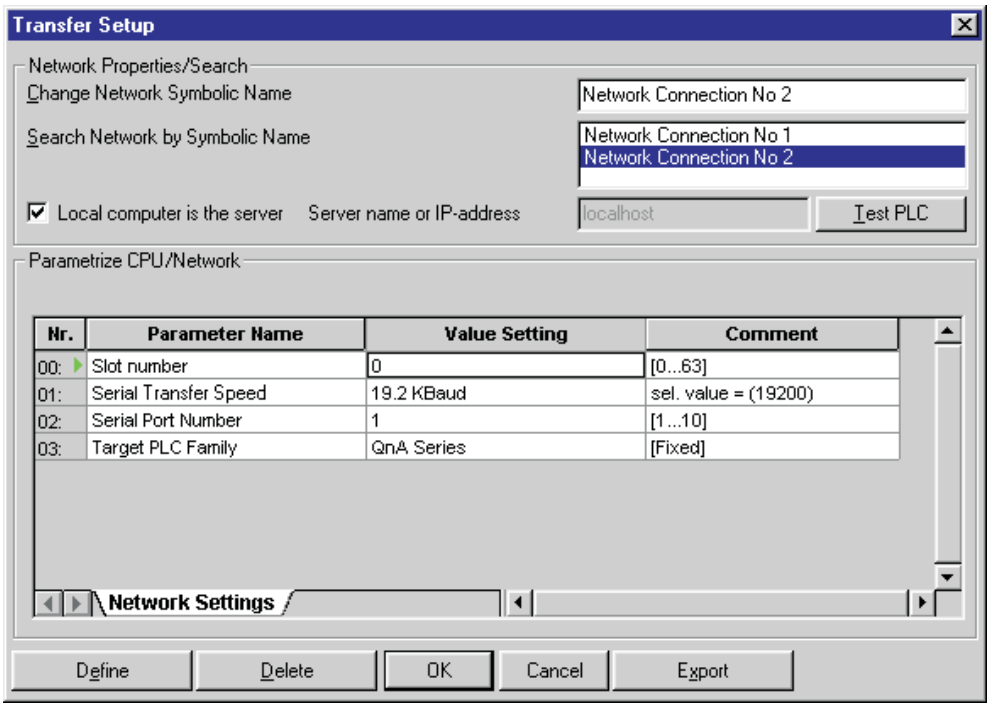


Fig. 5-5: *Default values of the defined network connection*

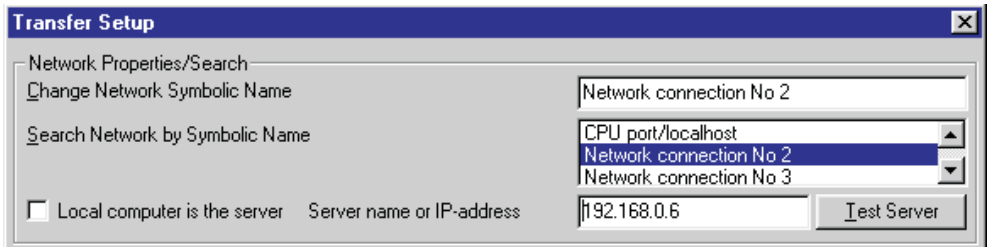


Fig. 5-6: *Transfer Setup for a server connection*

Item	Meaning	Shortcut
Change Network Symbolic Name	Change the name of the selected network connection.	Alt S
Search Network by Symbolic Name	Search for a network connection by name.	Alt N
Local computer is the server	Define the local computer as the server. The server address is localhost.	
Server name or IP adress	Specify the server name or the IP address of a server. The GX Configurator-DP server must be started manually on the computer. The user interface is a web page access from the default webbrowser. This item is only available if you disable "Local computer is the server" checkbox.	
Test PLC	If "Local computer is the server" is enabled: test connection to PLC	Alt T
Test Server	If "Local computer is the server" is disabled: test connection to the server (not to the PLC attached to the server!)	Alt T
Define	Define a new network connection.	Alt E
Delete	Delete the selected network connection.	Alt D
OK	Leave this dialog and set the current transfer setup for the project.	↵
Cancel	Leave the dialog and discard any changes.	Esc
Export	Write the current transfer setup into a XML file.	Alt X

Tab. 5-1: *Items in the transfer setup dialog*

Parameters in the Transfer Setup have the following meaning:

Item	Purpose	Range
Slot number	Specify the Slot in which the selected module is installed.	0–63
Serial Transfer Speed	Select the serial baud rate for the connection between PC and PLC. Selection range depends on CPU type.	9600 bps 19.2 kbps (default) 38.4 kbps 57.6 kbps 115.2 kbps
Serial Port Number	Select the serial port number of your PC connected to the PLC CPU.	1–10
Target PLC Family	Display the connected PLC serie.	Fixed ①

Tab. 5-2: *Items in the parametrize network*

① If "local access" is selected, this cell is fixed. If a 2nd-level MELSECNET has been selected, this parameter is used to select the type of the target PLC.

The CPU port network connection is defined using default values. Now you can edit the values directly in the network properties table.

5.2.2 Defining an Ethernet connection

Define a new network connection by click on the Define button. The network name is used to identify the settings for one transfer path and must therefore be unique.

NOTE

The length of the network name is limited to 32 characters. The network name can only contain alphanumeric characters and "_", "-", " ", ",", "(", ")".

Select the **MELSEC unit** your PC is connected to. You can either access the PLC via the CPU port with a special serial programming cable or via an Ethernet board. Below the Ethernet connection is selected.

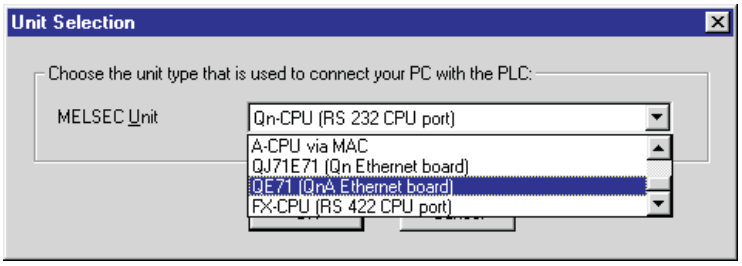

Unit Selection
Choose the unit type that is used to connect your PC with the PLC:
MELSEC Unit
Qn-CPU (RS 232 CPU port)
A-CPU via MAC
QJ71E71 (Qn Ethernet board)
QE71 (QnA Ethernet board)
FX-CPU (RS 422 CPU port)

Fig. 5-7:
Select Ethernet board

Select the **MELSEC network** across which the host CPU of the PROFIBUS master module can be accessed. The PROFIBUS master module can either be installed together with the target CPU on the same rack or on a remote CPU rack accessible across MELSECNET/10.

Below the local installation is selected.

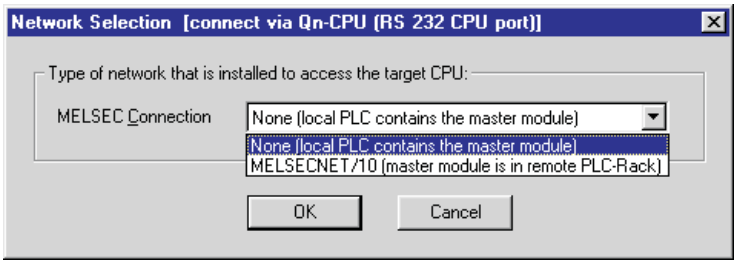

Network Selection [connect via Qn-CPU (RS 232 CPU port)]
Type of network that is installed to access the target CPU:
MELSEC Connection
None (local PLC contains the master module)
None (local PLC contains the master module)
MELSECNET/10 (master module is in remote PLC-Rack)
OK
Cancel

Fig. 5-8:
Select the network type

NOTE

If you have connected a "A CPU" to the PC, you can only choose the local installation ("local PLC contains the master module"). In this case, the dialog in fig. 5-8 doesn't appear.

The Ethernet network connection is defined using default values. Now you can edit the values directly in the network properties table.

Network properties for the Ethernet connection

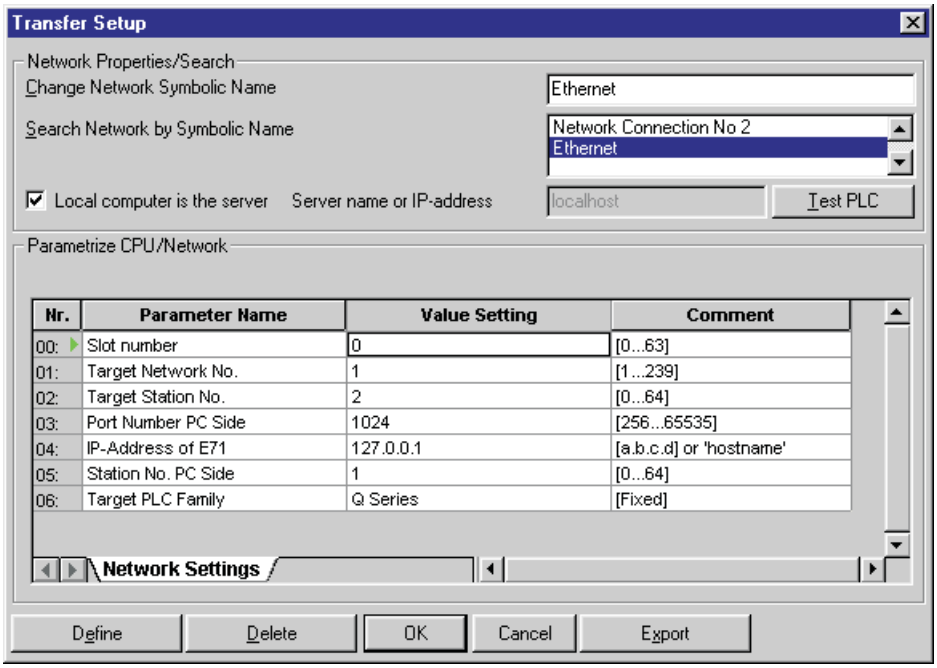


Fig. 5-9: *Default values of the defined Ethernet network connection*

Item	Purpose	Range
Slot number	Specify the slot in which the selected module is installed	0–63
Target Network No.	Specify the network number of the Ethernet module	1–239
Target Station No.	Specifiy the station number of the Ethernet module	0–64
Port Number PC Side	Specify the port number from the PC	256–65535
IP-Address of E71	Specify the IP address of the Ethernet board	a. b. c. d or hostname
Station No. PC Side	Specify the station number of the PC	0–64
Target PLC Family	Display the connected PLC serie	Fixed ①

Tab. 5-3: *Items in the Ethernet network (local access)*

① If "local access" is selected, this cell is fixed. If a 2nd-level MELSECNET has been selected, this parameter is used to select the type of the target PLC.

NOTE

When using "Table-exchange-mode", the **Port Number PC Side** must be set to "5001", while the **Station No. PC Side** must be set to "64".

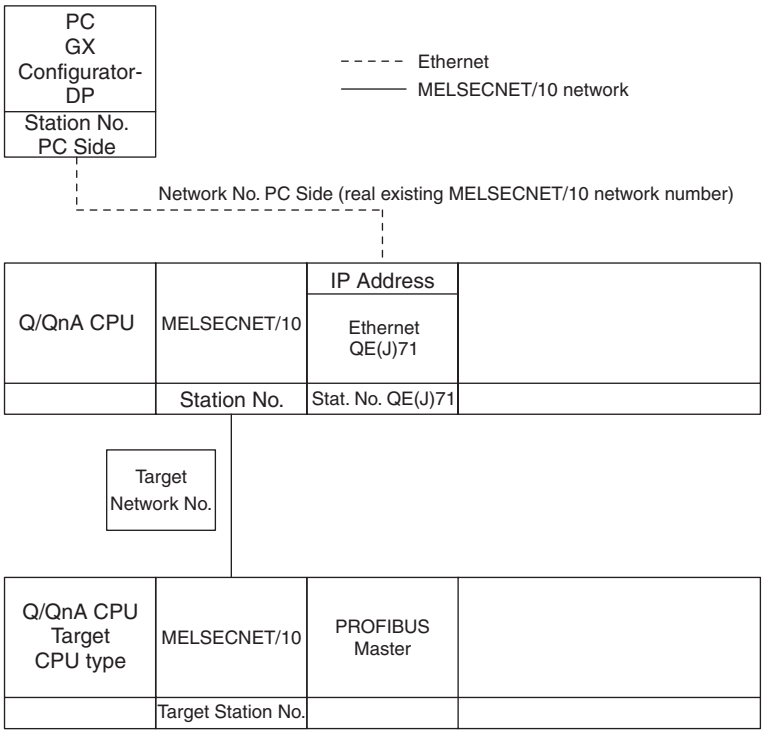
If "remote access" is selected, the following parameter will be added to the paramter table.

Item	Purpose	Range
Station No. of (Q)E71	Specify the staion number of the Ethernet module the PC is connected to.	0–64
Network No. PC Side	Specify the MELSECNET/10 network number the PC is connected to.	1–239

Tab. 5-4: *Items in the Ethernet network (remote access)*

The CPU port network connection is defined using default values. Now you can edit the values directly in the network properties table.

Structural overview of the Ethernet connection



Ethernet communications must be executed in the CPU.

The settings must correspond to the FB_GPRSET instruction.

5.2.3 Network connection test

The network connection settings can be tested online. Click on the Test PLC button in the transfer setup dialog to run the test (the test function is available for network connections only. A network connection can be defined from the transfer setup).

There are two types of communication tests available. Which test is performed depends on the selected server.

If the option "Local computer is the Server" is marked and you click on the Test PLC button, an attempt to connect to the target PLC is made to read the list of installed modules in the rack from the PLC CPU.

If you click on <TEST PLC> button after several seconds a message appears, which indicates the connected PLC. Confirm this message with OK .

NOTE

Use Microsoft® Windows 98/Windows Me:
If after several seconds you do not see a message, but still the "wait" appearance of the mouse pointer, please move the mouse. Then the confirmation or error message should be displayed.

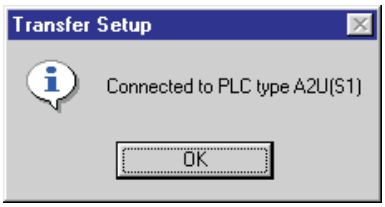


Fig. 5-10:
Connection to PLC established

Failing of a PLC CPU connection leads to a warning message.

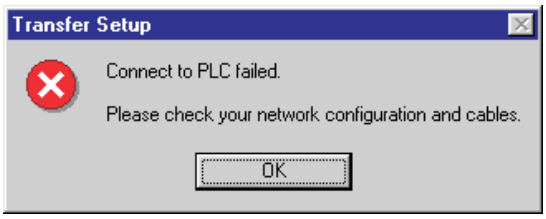


Fig. 5-11:
No connection to PLC

In that case check the network configuration and the cable connection between PC and PLC CPU.

If you specify slot number in which the Profibus is not installed, a list with all installed modules in the rack is generated.

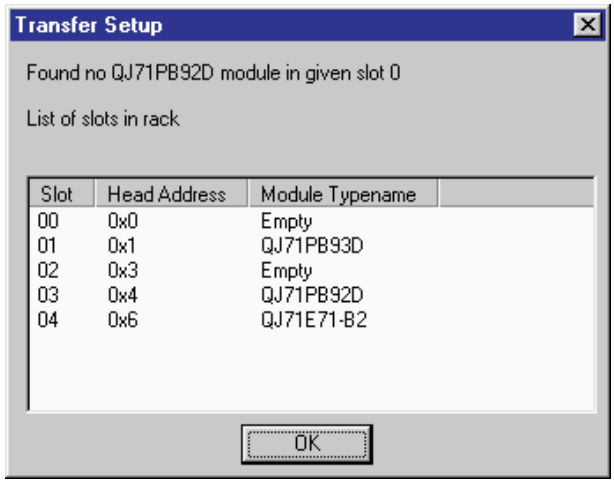


Fig. 5-12:
List of installed modules

If you specify a slot number in which the PROFIBUS/DP master module is installed, you will receive a confirmation message.

Fig. 5-13:
List of specific module

If the option “Local computer is the Server“ is disabled the test function checks access to the server. This test function uses standard TCP/IP procedures and depends on the performance and timeout settings of the TCP/IP interface.

Failing of a connection to the server computer or the server application leads to a warning message (see fig 5- and fig 5-).

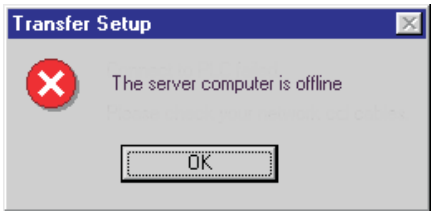


Fig. 5-14:
No connection to server computer

If the connection to the server computer is not available, check the cable connection between local PC and server computer.

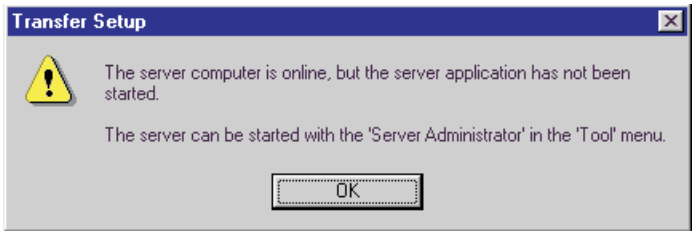

Transfer Setup
The server computer is online, but the server application has not been started.
The server can be started with the 'Server Administrator' in the 'Tool' menu.
OK

Fig. 5-15:
No connection to server application

If no access to the server application is possible, start the server. For that click on the Tool menu item **Server Administrator**. After the start, repeat the test. If the test is successful the following message appears:

Fig. 5-16:
No connection to server computer

5.2.4 Changing the network symbolic name

You can change the symbolic name of any network connection. Select the network connection you want to change.

Enter the new name in the **Change Network Symbolic Name** entry field and confirm with OK.

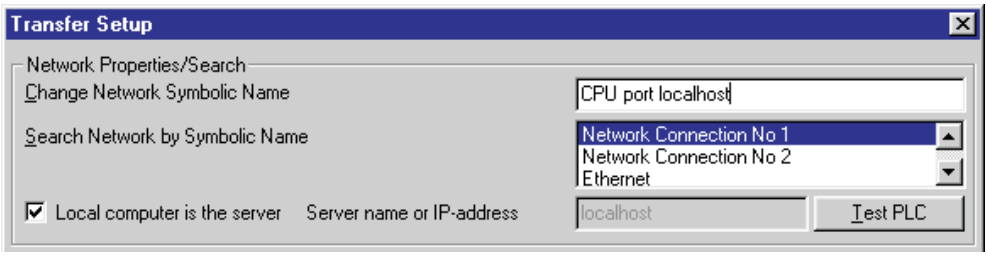


Fig. 5-17: *Change of symbolic name*

The symbolic name for the network connection has changed and can be selected from the **Search Network by Symbolic Name** drop-down list.

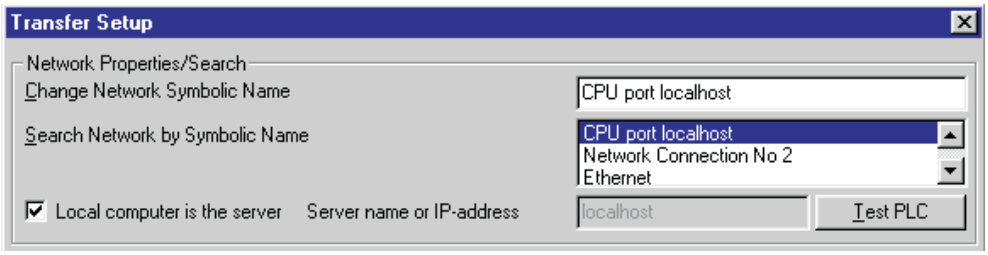


Fig. 5-18: *Selection of new symbolic name*

5.2.5 Delete a network connection

You can delete any defined network connection. Select the network connection to be deleted.

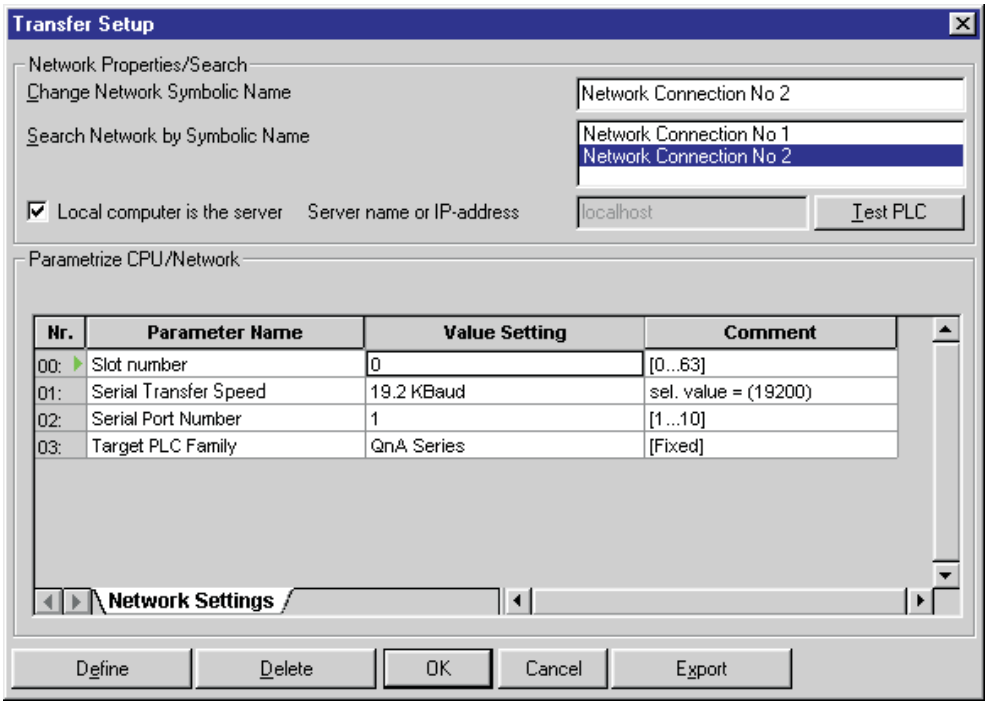


Fig. 5-19: *Delete a network connection*

Click on the Delete button.

Confirm the following dialog with Yes.

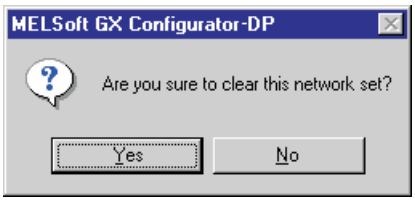


Fig. 5-20:
Selection of new symbolic name

5.2.6 Transferring the network settings

The network settings are not exported automatically. The network connection settings are stored in the GX Configurator-DP project file for PB92D modules (*.dp2), but can also be exported to an XML file.

6 Online Access to Modules

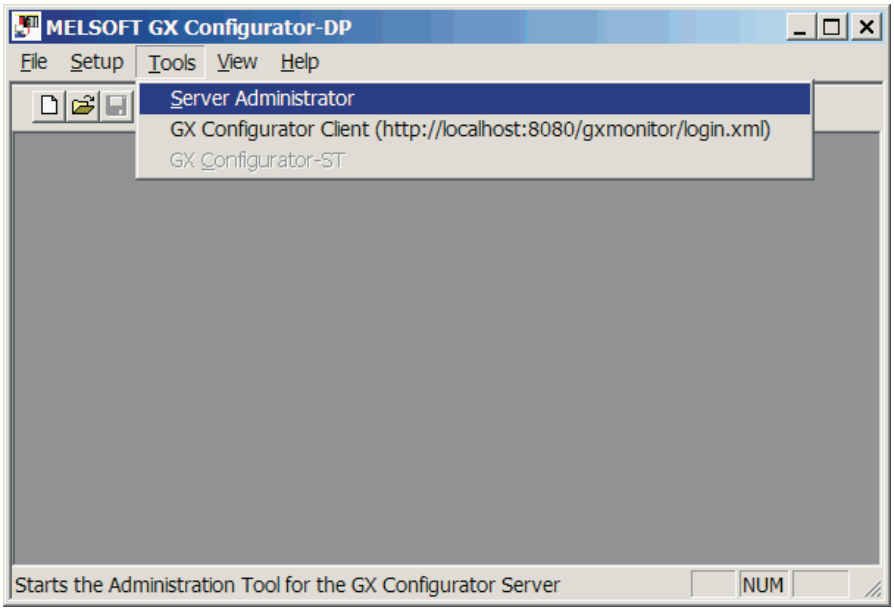


Fig. 6-1: **Tools** *menu*

The **Tools** menu includes tools for web-based online access to the network interface modules. Via the online access configuration projects (*.dp2 for DP masters, *.dpx for DP V0 slaves) created by GX Configurator-DP can be transferred to the PLC.

For this pupose a **Server Administrator** is supplied which starts a web server on the personal computer the PLC to be configured is connected to. This web server can be accessed via TCP/IP by the **Tools** menu item **GX Configurator Client** which opens your local standard web browser together with the correct URL or by an external web browser from a remote or local personal computer.

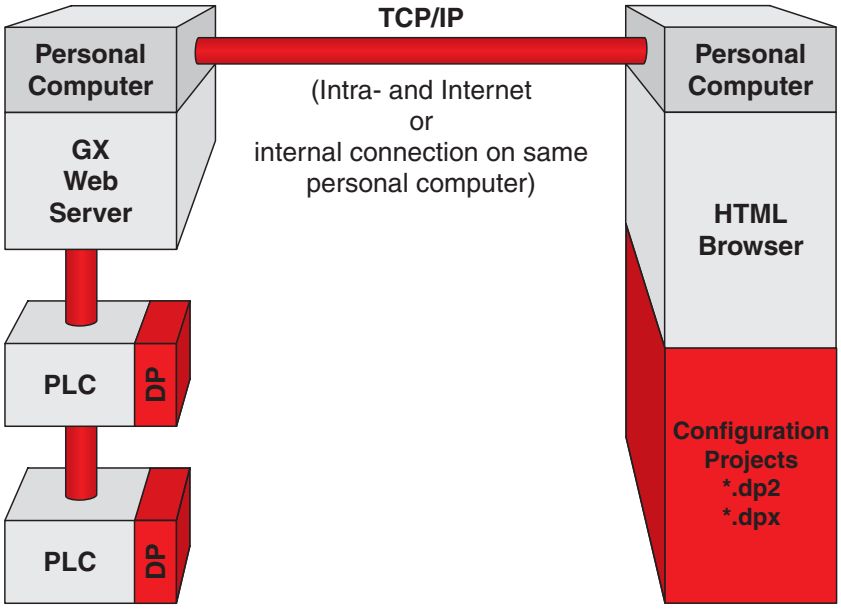


Fig. 6-2: *Web-based online access*

NOTES

For connection between WebServer and PLCs you can use a variety of protocols and network types. For supported networks please see chapter 6.1.4.

Whenever is the server accessed, the connection is tested. If no connection is detected, the following warning message appears:

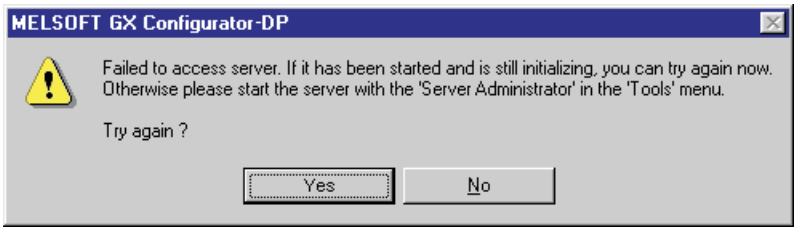

MELSOFT GX Configurator-DP
Failed to access server. If it has been started and is still initializing, you can try again now.
Otherwise please start the server with the 'Server Administrator' in the 'Tools' menu.
Try again ?
Yes
No

Fig. 6-3: *The server is not available (warning)*

6.1 System requirements

6.1.1 Supported platforms

Editing master modules and PB93D configuration projects with the GX Configurator-DP software is supported on Microsoft® Windows platforms only.

Server:

- Microsoft® Windows 98/Windows Me, Windows NT, Windows 2000, Windows XP
- Microsoft® Internet Explorer 5.5 or higher

Client:

Web browser with support of HTML 3 and JAVA2 like Netscape [TM], Microsoft® Internet Explorer [TM], and Konqueror on

- Microsoft® Windows 98/Windows Me, Windows NT, Windows 2000, Windows XP
- LINUX
- Others

6.1.2 Supported DP modules

The firmware of the PROFIBUS master modules must support the configuration via the CPU. Some older firmware versions of A1SJ71PB92D are accessible only via the serial port on the front panel of the module. These modules would either require a firmware update or the previous software version GX Configurator-DP 4.00.

Module	Min. Firmware Version	Comments
AJ71PB92D	B	Older firmware does not support CPU access.
A1SJ71PB92D	F	
QJ71PB92D	A	—
QJ71PB93D	A	—
QJ71PB92V	A	—
FX3U-64DP-M	A	—

Tab. 6-1: *Supported DP modules*

6.1.3 Supported PLC types

In general all CPU types which are supported by the respective DP modules are supported by the configuration software.

Supported are:

- A series
- QnA series
- System Q (Q mode only)
- FX series

6.1.4 Supported connections to PLC

The following CPU port and network connections from a personal computer (PC) to the PLC are supported:

- Serial to CPU port in A, QnA, System Q, and FX series PLCs
- USB to CPU port in System Q PLCs
- Ethernet from PC to E71 modules in QnA series and System Q PLCs
- Serial link from PC to QnA PLC and MELSECNET/10 to 2nd level QnA rack
- Ethernet link from PC to QnA PLC and MELSECNET/10 to 2nd level QnA rack
- Serial link from PC to System Q PLC and MELSECNET10 to 2nd level QnA rack
- Ethernet link from PC to System Q PLC and MELSECNET/10 to 2nd level QnA rack
- Serial link from PC to System Q PLC and MELSECNET10 to 2nd level System Q rack
- Ethernet link from PC to System QPLC and MELSECNET/10 to 2nd level System Q rack
- Serial via MAC to A, QnA series, and System Q PLCs (transparent mode)

Not supported are:

- Ethernet and MELSECNET access to A series PLCs
- Serial access to C24 modules
- CC-link networks

NOTE

For successful network settings you should be familiar with the characteristics of MELSEC Ethernet and MELSECNET/10 and refer to the corresponding manuals.

6.2 Read/Write operations with the master module

The online access interacts with the network interface modules via a CPU port or network connection.

Before you start the transfer:

- Save your changes to the configuration project before you select any item from the **Tools** menu (otherwise a message box will remind you to do so).
- Ensure that no other data is transferred from or to the DP master by the PLC CPU (FROM/TO instructions).
- Ensure that the PLC to be configured is connected correctly to the personal computer the web server is running on.
- The module is automatically set to parameter mode.

After the transfer is completed:

- The module is automatically set back to the previous operating mode.
- Start the DP transfer either manually via GX Configurator-DP or via the PLC program.

6.3 Server Administrator

The **Server Administrator** starts a web server on the personal computer the PLC to be configured is connected to. This web server can be accessed via TCP/IP by the **Tools** menu item **GX Configurator Client** which opens your local standard web browser together with the correct URL or by an external web browser from a remote or local personal computer.

The **Server Administrator** can either be started from the **Tools** menu or from the **Start** menu as stand-alone version. It shows the URLs for local and for remote access by an HTML browser.

When started from the **Tools** menu the **Server Administrator** provides an additional check box "**This computer is the server**". If you clear this check box, a remote server computer name can be entered. By pressing the **Save** button this entered name is stored together with the menu item "**GX Configurator Client**". The server can only be started or stopped, if it is located on the same computer. If a server on a remote computer is to be accessed, the server must already be running on that computer.

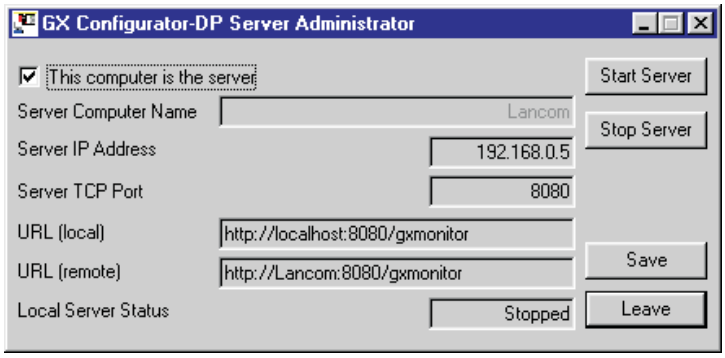


Fig. 6-4:
Server Administrator dialog (from **Tools** *menu)*

When started from the **Start** menu as stand-alone tool the **Server Administrator** does not display an additional check box.

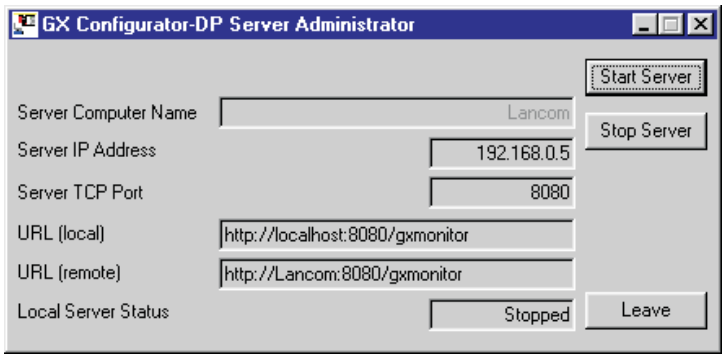


Fig. 6-5:
Server Administrator dialog (stand-alone)

NOTES

The URLs for local or remote web browser access of the server are shown in the fields **URL** of the **Server Administrator** dialog.

The server occupies a TCP port. The number of this port is read from the configuration files by the **Server Administrator** and displayed in the field **Server TCP Port**. This port number must not be used by any other application running on the same computer.

If you leave the **Server Administrator** dialog, the server must have been stopped. Otherwise the following warning message appears:

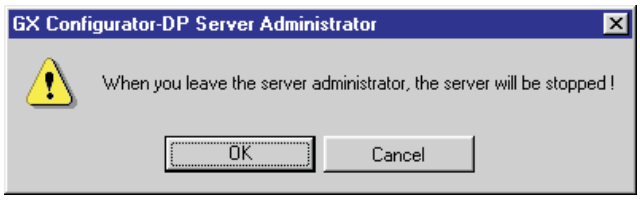


Fig. 6-6:
Warning by leaving the Server Administrator dialog

When the server is started, a separate console (DOS) window appears. This window should never be closed, as this will result in an improper termination of the server. The "Stop Server" function of the server administrator should be used instead. This will also close the console window, after the server has been shutdown.

6.4 GX Configurator Client

The web server is accessed from the client system via the menu item **GX Configurator Client** from the **Tools** menu or by a stand-alone web browser. The server address (URL) can be taken from the **Server Administrator** dialog.

NOTE

The web server must have been started via the **Server Administrator** (see above) either on your local personal computer or on a personal computer within your TCP/IP network before it can be accessed by a web browser.

6.4.1 Authentication

When you access the web server via a web browser the web page **Authentication** opens. Here you have to log in to the web server by entering a valid username and password. Usernames and passwords are edited and stored in the file *users* in the GX Configurator-DP directory *Server\gxmonitor\Admin*.

Valid are for example:

Username: gxinet
Password: super

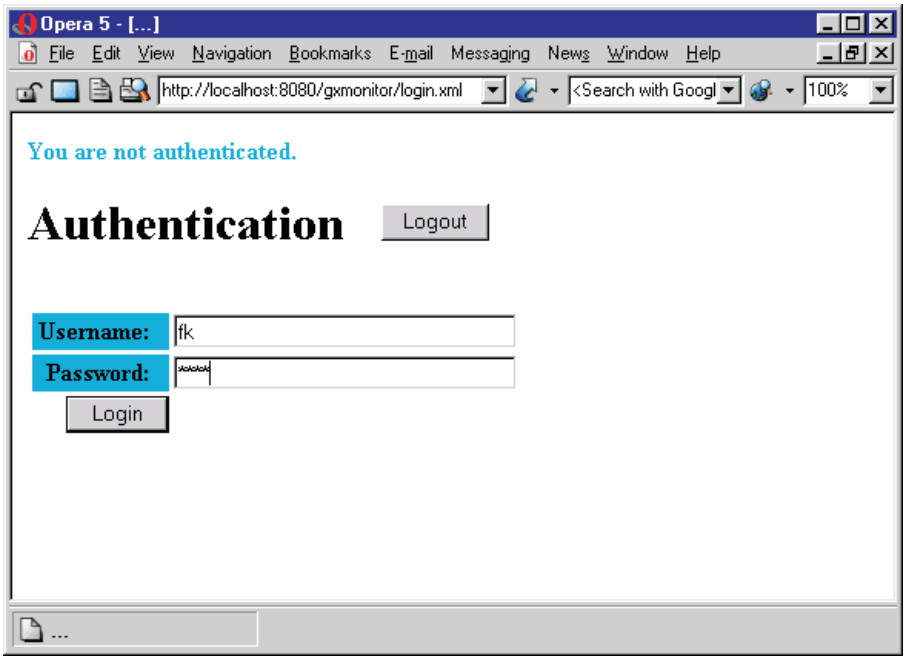


Fig. 6-7: *Web page* **Authentication**

The file *users* is an ASCII file and can be edited with for example Microsoft Notepad. For each user there is a line in the file with the user name and the password separated by a colon (':'). Optionally the attribute 'read+write' can be added, separated from the password with another colon. This attribute means that the user has read and write access, i.e. he can download a PROFIBUS configuration or start/stop the CPU. If this attribute is missing, the user can only read information from the PLC.

Sample contents of *users* file.

```
profibus : gxmonitor
gxinet : super : read+write
```

6.4.2 Network Path Selection

After a successful login this wep page opens. Here you select a connection to the target PLC to be configured. Additional network configuration files (*.xml) can also be added to the network database.

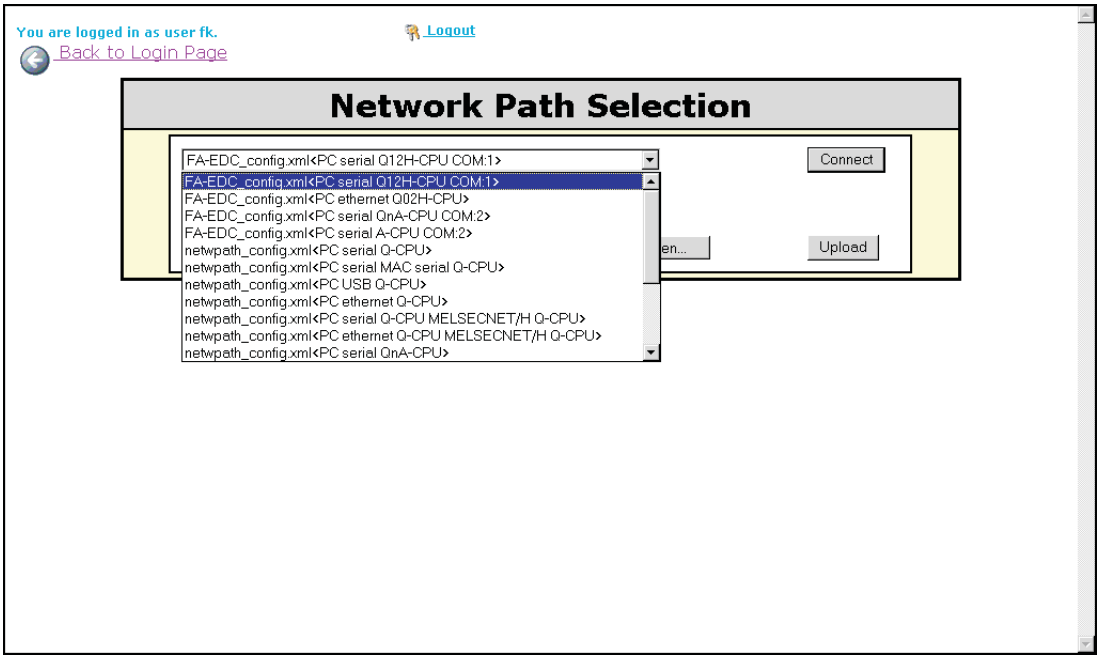


Fig. 6-8: *Web page* **Network Path Selection**

Connect

Connect to the selected target PLC to be configured.

Browse

Browse for network configuration files (*.xml) to be uploaded to the web server.

Upload

Upload the browsed network configuration file (*.xml) to the web server to be added to the network database.

6.4.3 Rack Configuration

When you are successfully connected to this web page opens. Here the modules found in the PLC rack are listed including their slot number, head address, and module name.

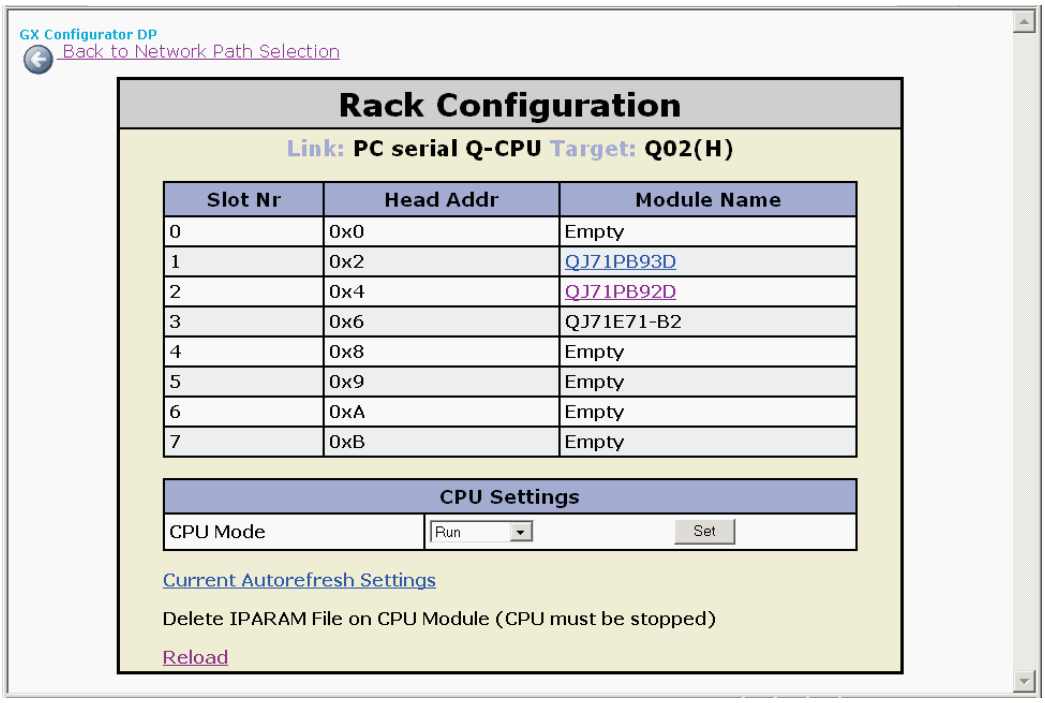


Fig. 6-9: *Web page* **Rack Configuration**

Module Name (underlined)

Opens the web page **Module Configuration** for a PROFIBUS master (see below) or for a PROFIBUS slave (see below).

CPU Mode

Displays the current CPU mode. The desired CPU mode can be selected from the drop down list and set via the **Set** button.

Current Autorefresh Settings

Open the Auto Refresh Settings page. On this page the autorefresh entries in the IPARAM file are read from the connected PLC CPU, parsed and displayed in a table (see below)

Delete IPARAM File on CPU Module

Deletes the IPARAM file storing the autorefresh settings on the CPU module.

Reload

Reload (refresh) the **Rack Configuration** dialog.

6.4.4 Module Configuration

This web page shows the current configuration of the DP master module previously selected.

NOTE

If the master type set in the project does not match the type of the actually connected module, the configuration is converted online. So if you want to be sure that your configuration is downloaded unchanged, please always select the correct master type when creating a new project or convert the project to one of the correct type.

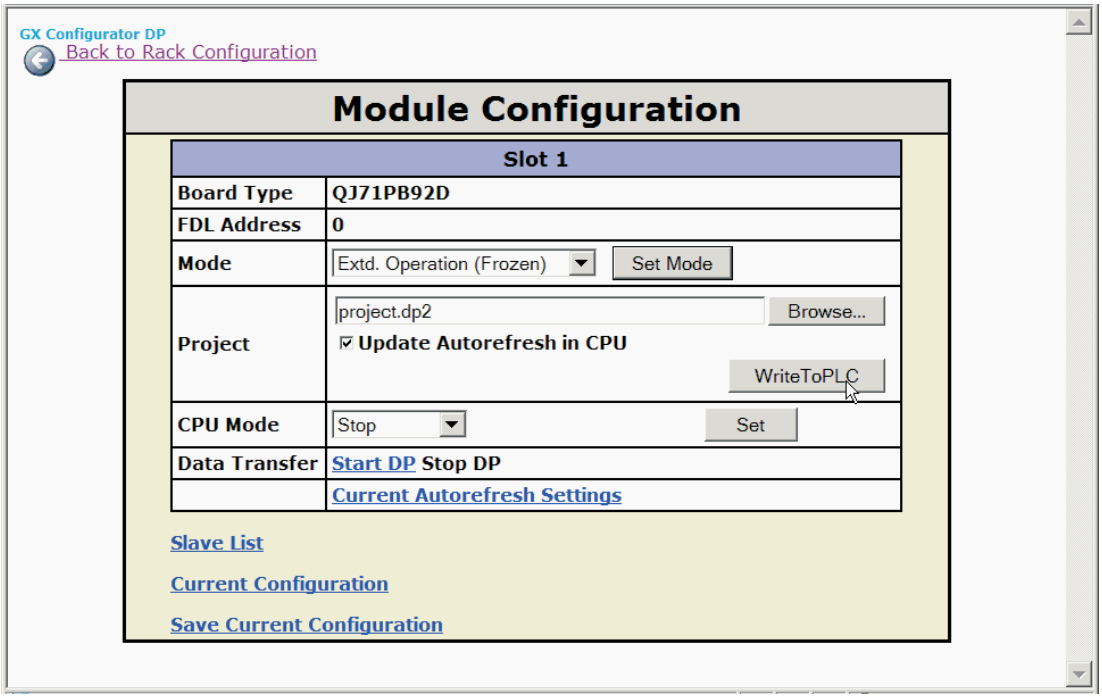


Fig. 6-10: *Web page* **Module Configuration**

Mode

Displays the current operating mode of the module. The desired operating mode can be selected from the drop down list and set via the **Set** button.

NOTES

The current setting of the FDL address is not available for the A(1S)J71PB92D.

If you use a A(1S)J71PB92D module the user must set the correct mode with the switch on the front of the module. The modes are 0 or E for operation mode and 1 for configuration mode. The module will take over the setting of the mode switch after a CPU reset.

The mode of a FX3U-64DP-M will not be displayed and also can not be changed. This master module supports only one single operation mode.

Project

To configure the DP master a configuration project (*.dp2) created by GX Configurator-DP is required. The **Browse** button opens a file dialog to browse for such a configuration project on the client computer.
The **Write to PLC** button uploads the selected configuration project to the web server, where it is written to the PLC.

NOTE | By downloading a configuration you stop the data exchange on the DP network.

If the configuration download is successful, the following web page appears:

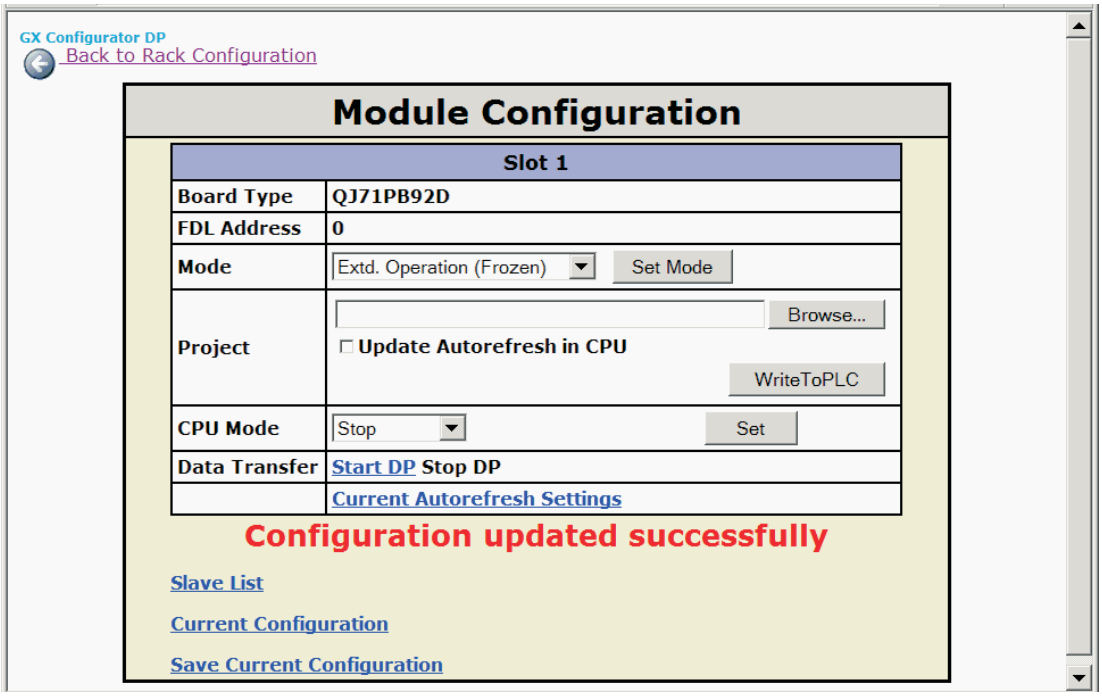


Fig. 6-11: *Web page* **Module Configuration (successfull configuration update)**

Update Autorefresh in CPU:

Only available for Q series, and only if the CPU is stopped. If selected, the autorefresh settings in the IPARAM file of the CPU are updated immediately after successfully writing the configuration project to the PLC.

If an autorefresh entry for this slot is already present in the IPARAM file, it is overwritten with the settings matching the module configuration.
If no IPARAM file is found, it is created.
If no entry for this slot can be found, it is inserted at the appropriate position in the file.

CPU Mode

Displays the current CPU mode. The desired CPU mode can be selected from the drop down list and set via the **Set** button.

Data Transfer

Manually starts or stops the PROFIBUS/DP data transfer for the displayed DP master.

NOTE

If you start the PROFIBUS/DP data transfer via a System Q CPU, after a reset or after switching ON the power supply the System Q CPU will lose this operating state and the PROFIBUS/DP data transfer remains stopped. In this case the PROFIBUS/DP data transfer must be started explicitly by an extra program that sets the startup request signal at the according address of the DP master (Y0: start request signal or Y11: operation mode change request signal).

Trouble Monitor

Available only if the external monitoring package is installed. For details refer to the software manual of the monitoring package. **Start Monitor** and **Stop Monitor** starts or stops the monitoring of errors. **Trouble Monitor** opens the web page **Trouble Information** where the monitored errors are shown (see below).

Current Autorefresh Settings

Open the Auto Refresh Settings page. On this page the autorefresh entries in the IPARAM file are read from the connected PLC CPU, parsed and displayed in a table (see below).

Slave List

Opens the web page **Slave List** (see below).

Current Configuration

Opens the web page **Current Module Settings** (see below).

Save Configuration

Saves the current module settings in an XML-format file with the default extension *.gxdp. This function is intended for documentation purposes only. The saved XML-format file does not contain the full contents of a configuration project file but only the information that is actually on the module. You can rename the file extension *.gxdp to *.xml and view the file e.g. in a web browser.

NOTE

The saved XML-format file can **not** be opened in GX Configurator-DP as configuration project.

6.4.5 Trouble Information

Available only if the external monitoring package is installed. For details refer to the software manual of the monitoring package. This web page shows monitored error status information.

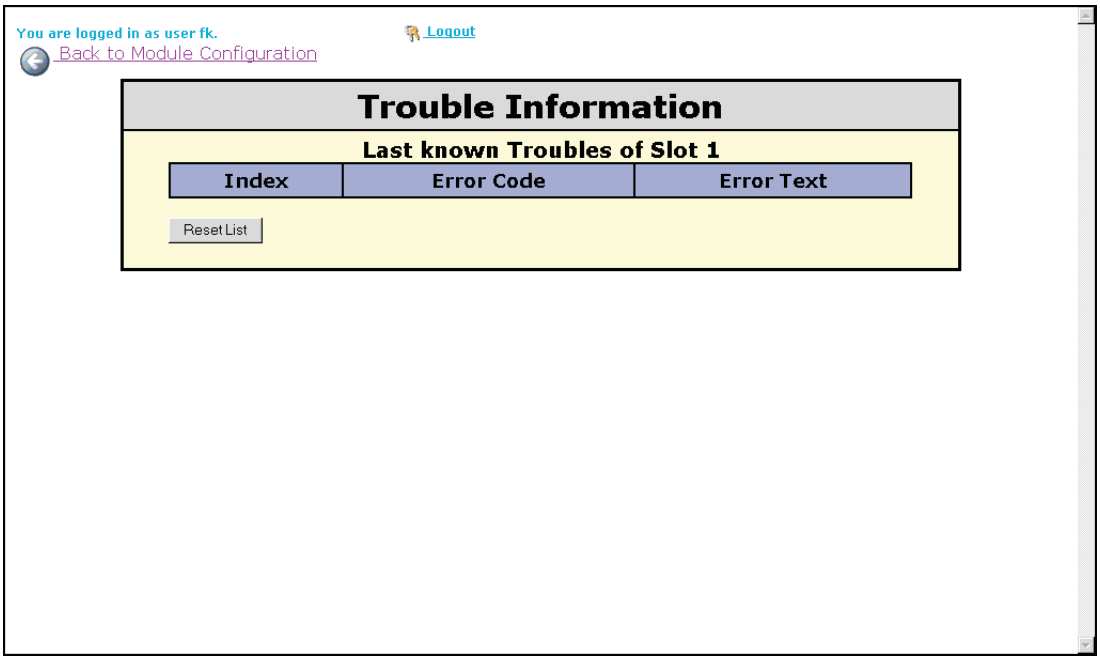
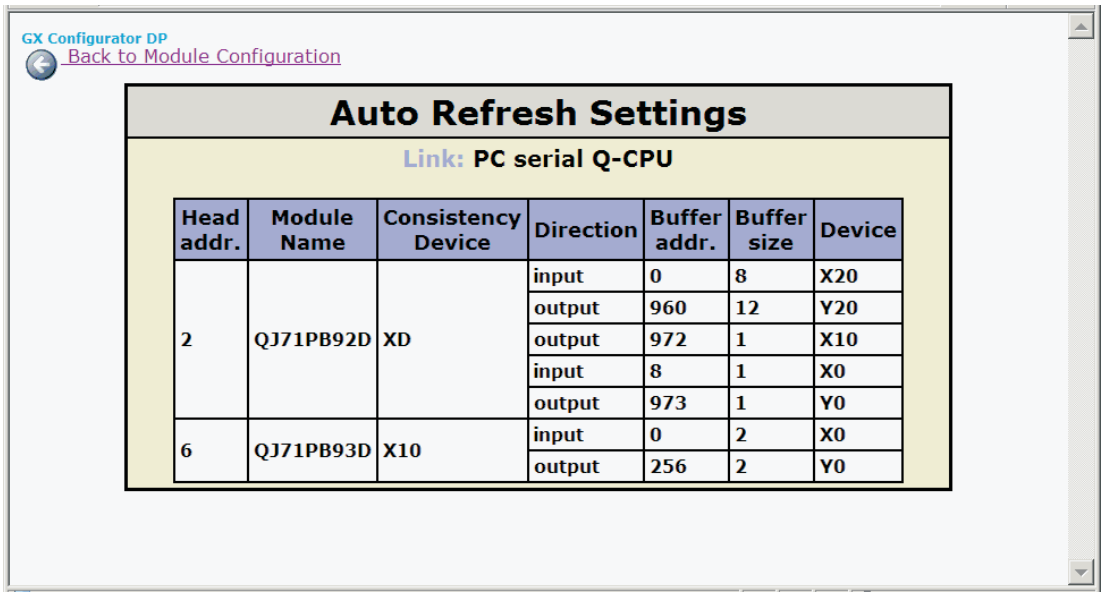


Fig. 6-12: Web page **Trouble Information**

6.4.6 Auto Refresh Settings

Available only for MELSEC System Q PLCs.



Head addr.	Module Name	Consistency Device	Direction	Buffer addr.	Buffer size	Device
2	QJ71PB92D	XD	input	0	8	X20
			output	960	12	Y20
			output	972	1	X10
			input	8	1	X0
			output	973	1	Y0
6	QJ71PB93D	X10	input	0	2	X0
			output	256	2	Y0

Fig. 6-13: Web page **Auto Refresh Settings**

NOTE | At this page the information of all installed modules are displayed.

6.4.7 Slave List

This web page shows status information on the DP slaves connected to the DP master.

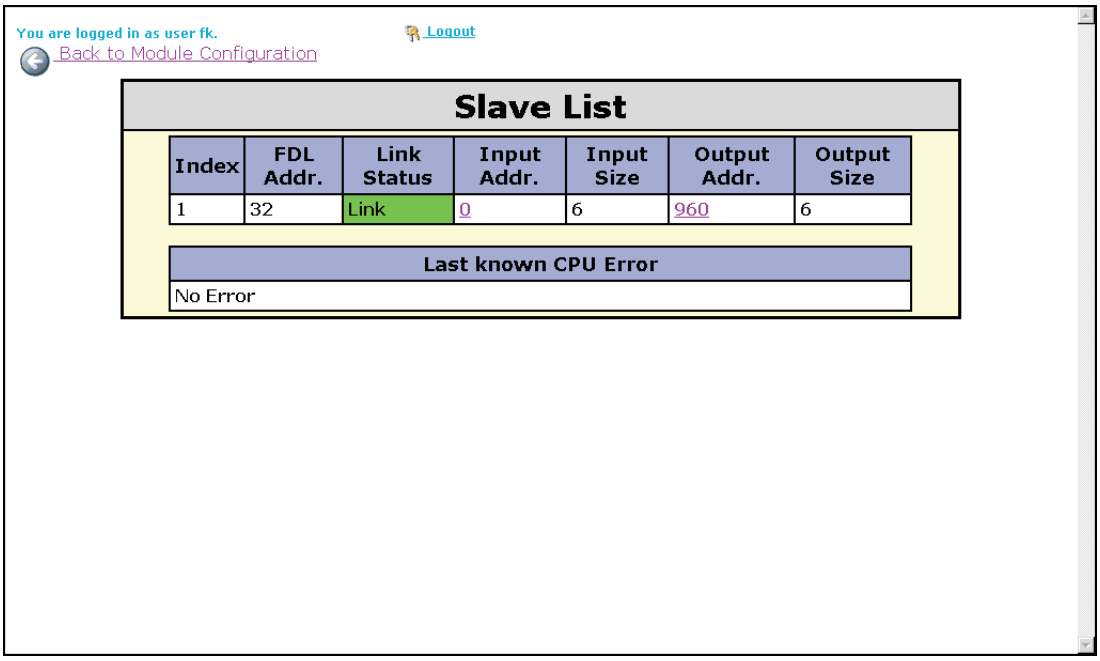


Fig. 6-14: *Web page* **Slave List**

6.4.8 Current Module Settings

This web page shows the current configuration of the PB92D DP master module previously selected.

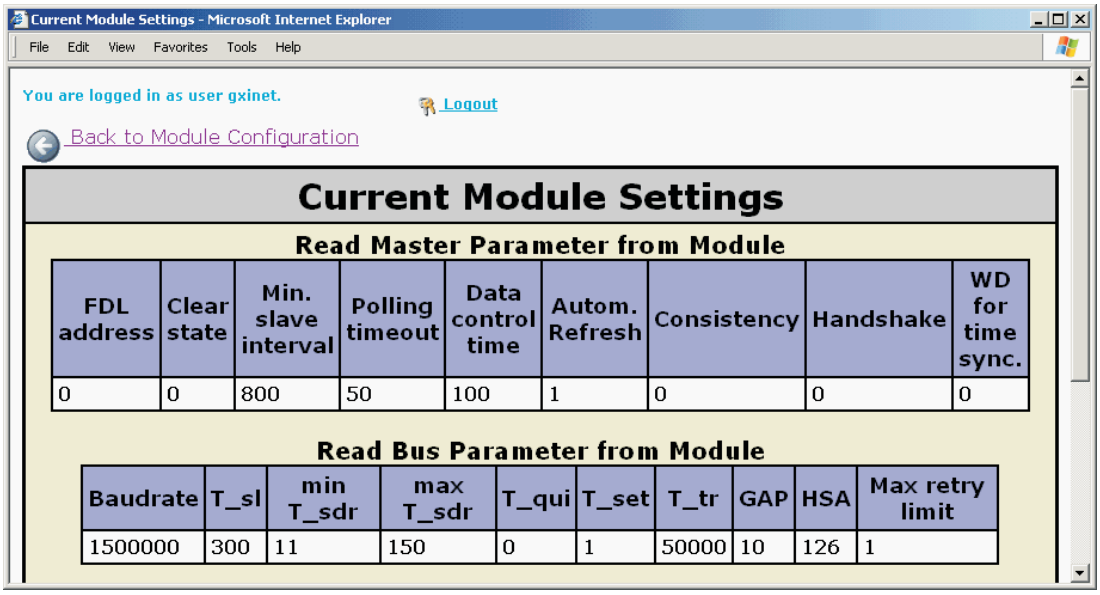


Fig. 6-15: *Web page* **Current Module Settings**

6.4.9 Module Configuration

This web page shows the current configuration of the PB93D DP slave module previously selected.

NOTE

If the master type set in the project does not match the type of the actually connected module, the configuration is converted online. So if you want to be sure that your configuration is downloaded unchanged, please always select the correct master type when creating a new project or convert the project to one of the correct type.

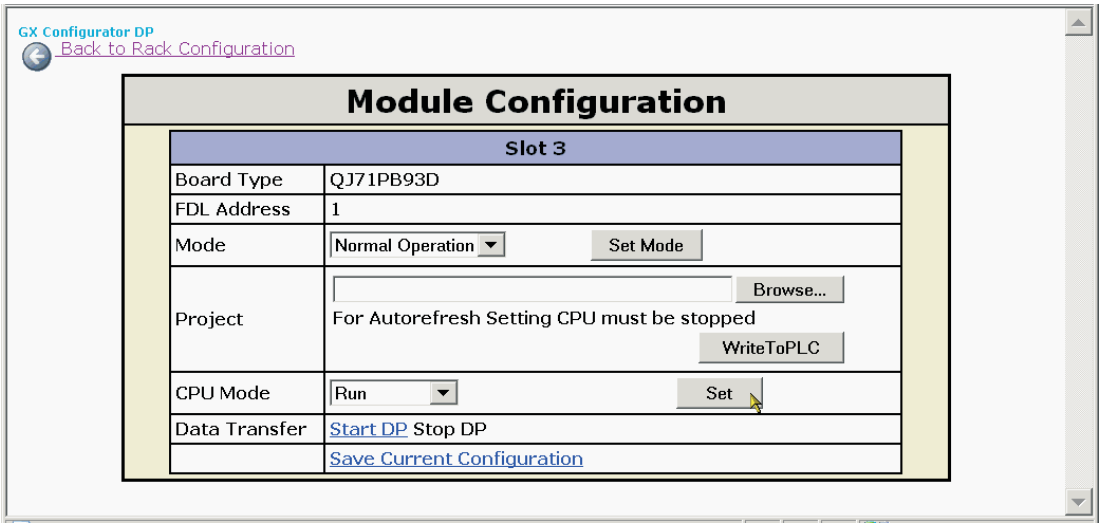


Fig. 6-16: *Web page* **Module Configuration**

Mode

Displays the current operating mode of the module. The desired operating mode can be selected from the drop down list and set via the **Set** button.

Mode 0: Normal operation mode. Allows upload and download of configuration.
Mode 2: Diagnostic mode.

Project

To configure the DP slave a configuration project (*.dpx) created by GX Configurator-DP is required. The **Browse** button opens a file dialog to browse for such a configuration project on the client computer.
The **Write to PLC** button uploads the selected configuration project to the web server where it is written to the PLC.

Update Autorefresh in CPU:

Only available, if CPU is stopped. If selected, the autorefresh settings in the IPARAM file of the CPU are updated immediately after successfully writing the configuration project to the PLC.

If an autorefresh entry for this slot is already present in the IPARAM file, it is overwritten with the settings matching the module configuration.
If no IPARAM file is found, it is created.
If no entry for this slot can be found, it is inserted at the appropriate position in the file.

NOTE

If the IPARAM file is written into the CPU while GX Developer is running, GX Developer can not display the IPARAM file in the list of “Read from PLC/Delete PLC data”. Therefore, please update the file list by pressing the “Refresh View” button of the “Read from PLC/Delete PLC data” function.

CPU Mode

Displays the current CPU mode. The desired CPU mode can be selected from the drop down list and set via the **Set** button.

Data Transfer

Manually starts or stops the PROFIBUS/DP data transfer for the displayed DP slave.

Save Configuration

Saves the current module settings in an XML-format file with the extension *.gxdp. This function is intended for documentation purposes only. The saved XML-format file does not contain the full contents of a configuration project file but only the information that is actually on the module. You can rename the file extension *.gxdp to *.xml and view the file e.g. in a web browser.

NOTE

The saved XML-format file can **not** be opened in GX Configurator-DP as configuration project.

6.4.10 Device Memory Request

Available only if the external monitoring package is installed. For details refer to the software manual of the monitoring package. On this web page you specify devices to be read from the device memory. The **Read Device** button opens the web page **Device Memory** (see below).

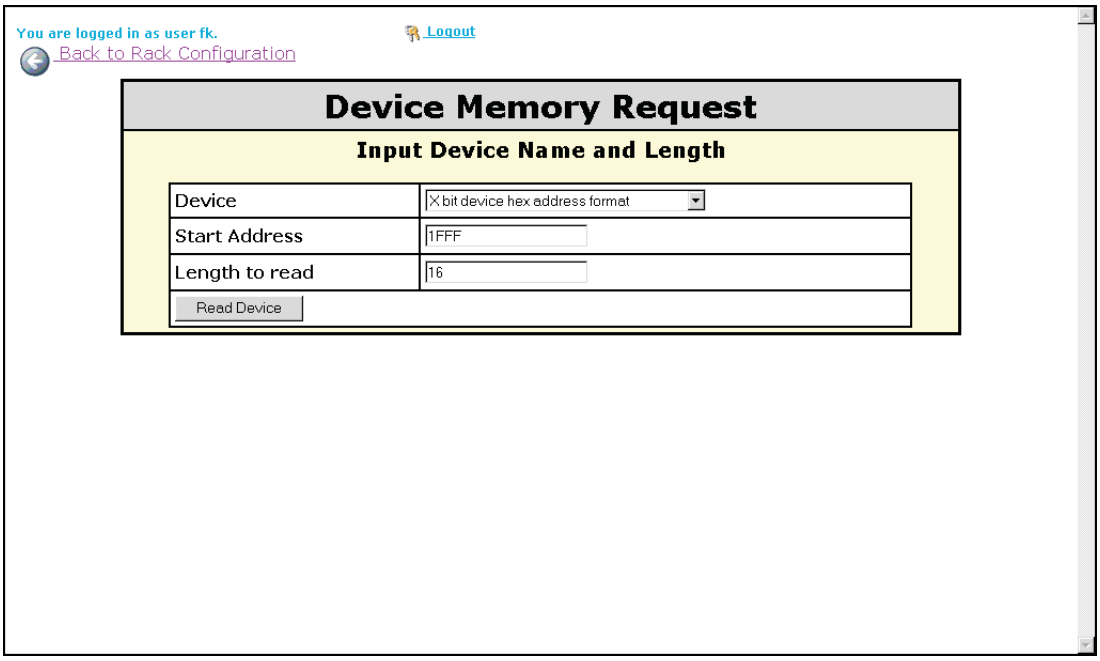


Fig. 6-17: *Web page* **Device Memory Request**

6.4.11 Device Memory

Available only if the external monitoring package is installed. For details refer to the software manual of the monitoring package. This web page shows the status of the devices specified on the web page **Device Memory Request**.

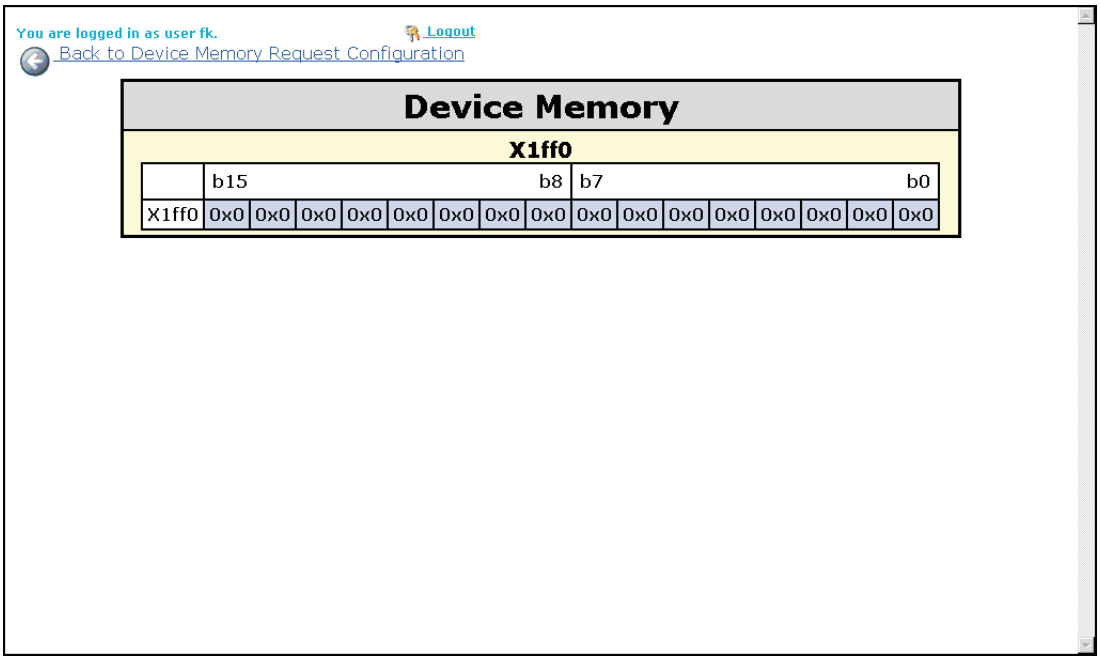


Fig. 6-18: *Web page* **Device Memory**

6.5 Troubleshooting

In any case first ensure that the web server has been started.

6.5.1 GX Configurator starting problems

If you see the following message when starting GX Configurator-DP under Microsoft® Windows NT or Windows 98, please make sure that you have at least Microsoft® Internet Explorer version 5.5 installed. If this is the case and the message is still displayed, please run the setup of the XML parser as indicated in the message.

MELSOFT GX Configurator-DP
The Microsoft XML parser is not installed.
Please start the separate XML parser setup 'msxml*setup.exe' located in the subdirectory 'MSXML' of your installation directory.
(This requires MS Installer 2.0, which can be installed with 'InstMsi.exe')
OK

Fig. 6-19: *No XML parser installed*

If you encounter an error when running the XML parser setup, this may be caused by a missing or wrong version of the Microsoft® Installer. In this case install the Microsoft® Installer first by running either the 'InstMsiA.exe' (on Microsoft® Windows 98, Windows Me) or the 'InstMsiW.exe' (on Microsoft® Windows NT, Windows 2000). After this start the XML parser setup again.

6.5.2 Web browser related hints

Problem 1

Your web browser can not access the GX Configurator-DP web server running on your local computer or in your local network.

Solution

In case you use a proxy server for the connection of your intranet (LAN) to the Internet ensure that your web browser bypasses this proxy server for **local** connections.

In the *Microsoft® Internet Explorer* for example the proxy settings are setup in the dialog

Extras -> Internet Options -> Connections -> LAN Settings:

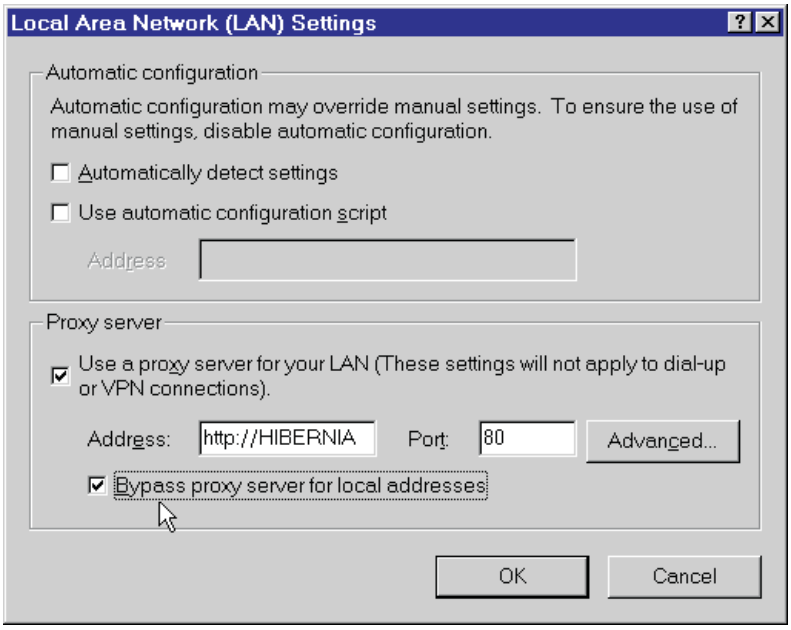

Local Area Network (LAN) Settings
Automatic configuration
Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.
Automatically detect settings
Use automatic configuration script
Address
Proxy server
Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections).
Address: http://HIBERNIA
Port: 80
Advanced...
Bypass proxy server for local addresses
OK
Cancel

Fig. 6-20:
Bypass proxy server for local addresses

Other browsers will have similar settings. For further details ask your network administratror.

Problem 2

Your web browser notifies that the addressed server could not be located ("URL not found" etc.).

Solution

The GX Configurator-DP web server needs a little time for initialization. After you have started the server wait for 15–30 seconds before you connect to it.

Problem 3

Inconsistent data especially with several web browsers accessing the server simultaneously

Solution

Accept cookies sent from the GX web server. Please check your browser settings.

For example in Microsoft® Internet Explorer 5.5 open the security settings. Go to the settings for Cookies. The option "Allow per-session cookies" must either be set to "Enable" or "Prompt". If set to "Prompt", you will be asked, whether you accept the cookie when connecting to the GXDP webserver. Please press "Yes" to accept the session-cookie.

6.5.3 TCP/IP network related hints

Problem 1:

Your web browser can not connect to the web server computer by the **Server Computer Name** displayed by the **GX Monitor Server Administrator**.

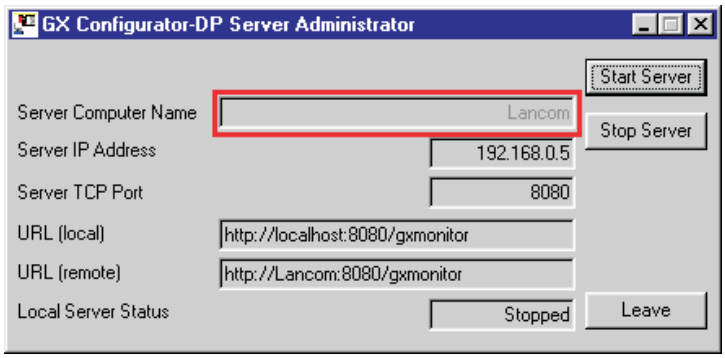


Fig. 6-21:
Server Computer Name (DNS Host Name)

Solution

The shown **Server Computer Name** (i.e. DNS Host Name) can not be resolved by any DNS server.

Microsoft® Windows computers have a computer name entered when installing the operating system. This is the "NetBIOS name". This name can also be changed afterwards. Usually this name is the only name of this computer across a network.

But it is also possible to assign the computer a second name for the "Domain Name Service (DNS)". This is the "DNS Host Name".

In the example below a *Microsoft® Windows NT 4* computer has the original (NetBIOS) name "Derry" shown in its **Network** properties dialog under the **Identification** tab:

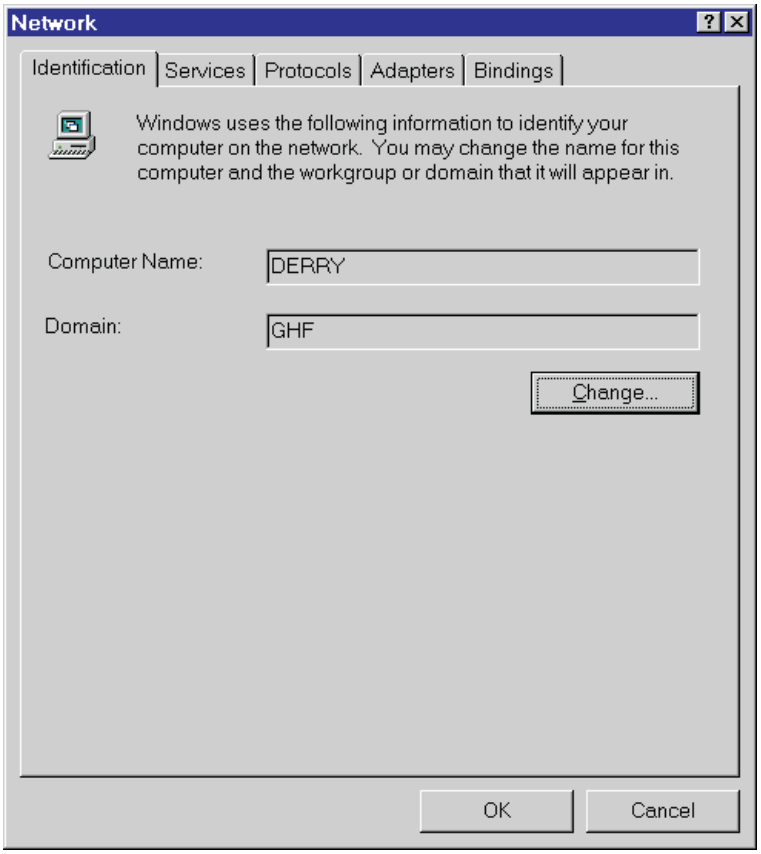


Fig. 6-22: *Network/Identification: NetBIOS name*

In the **TCP/IP Properties** dialog under the **DNS** tab we enter the new DNS Host Name "hugo" in the **Host Name** field. This name is not registered on any DNS server.

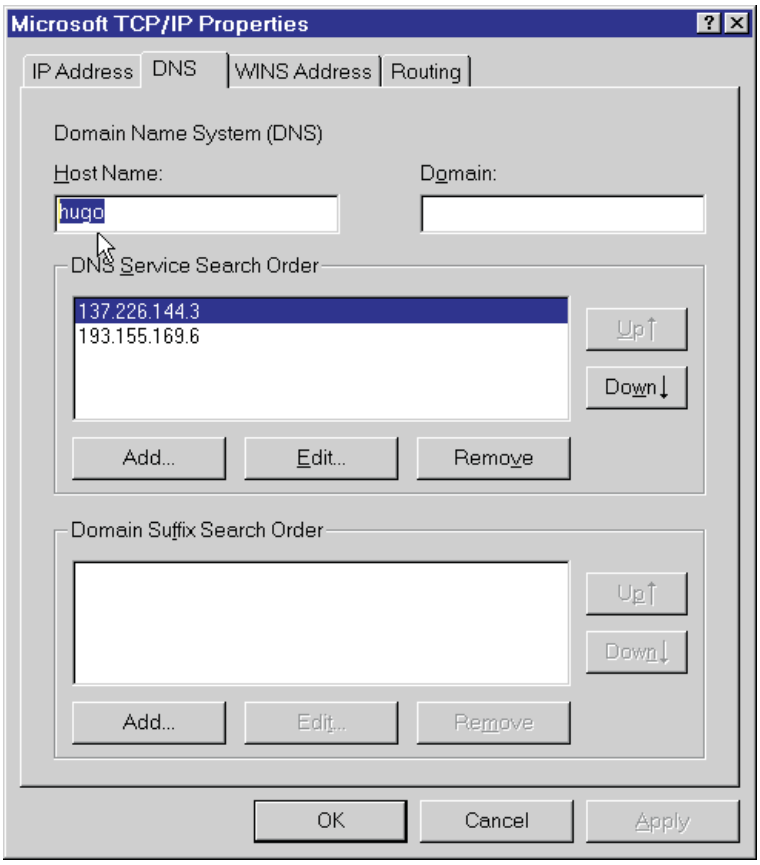


Fig. 6-23: *Network/Protocols/TCP/IP: DNS Host Name*

When the DNS Host Name (here: "hugo") and the NetBIOS name (here: "derry") differ, GX Configurator-DP displays the following message box:

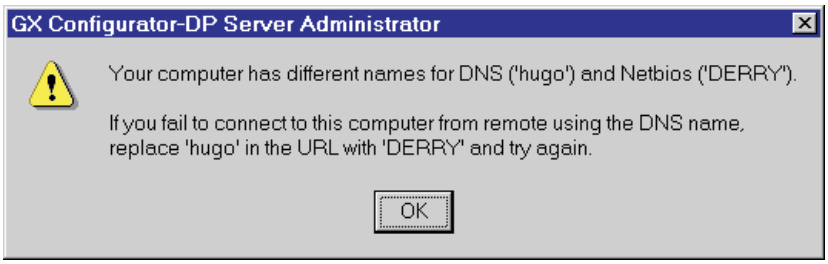

GX Configurator-DP Server Administrator
Your computer has different names for DNS ('hugo') and Netbios ('DERRY').
If you fail to connect to this computer from remote using the DNS name, replace 'hugo' in the URL with 'DERRY' and try again.
OK

Fig. 6-24: *Differing DNS Host and NetBIOS names*

When you use the DNS Host Name on another (client) computer as communication target the other computer will try to get the IP address from a DNS server. If the target computer is not found by its DNS Host Name, it is not possible to communicate with it.

Using the NetBIOS name or the IP address as communication target should succeed because computers in a Microsoft® Windows network send their names as broadcasts to other computers.

Microsoft® Windows 9x provides similar settings. With *Microsoft® Windows 2000* and *XP* the network configuration has changed a lot. It is not as easy anymore to assign a separate DNS computer name.

For further details ask your network administrator.

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